REVISED CLOSURE PLAN FOR THE HAZARDOUS WASTE CONTAINER STORAGE AREA (HWCSA)

prepared for

COLUMBUS COATED FABRICS
BORDEN PACKAGING AND INDUSTRIAL PRODUCTS
DOMESTIC AND INTERNATIONAL
DIVISION OF BORDEN, INC.
1280 NORTH GRANT AVENUE
COLUMBUS, OHIO 43201

EPA ID NO. OHD 004 294 351

JUNE 27, 1991



Environmental and Applied Earth Science Consultants

T. M. GATES, INC. 787 ROUND BOTTOM ROAD MILFORD, OHIO 45150 (513) 248-1025

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1.0 FACILITY DESCRIPTION

1.1 General Description

The Columbus Coated Fabrics (CCF) facility is located at 1280 North Grant Avenue in Columbus, Ohio, north of downtown (Figure 1) and covers approximately five (5) acres. The facility manufactures decorative vinyl products. Hazardous wastes are generated from the manufacturing process and stored in containers temporarily pending shipment off-site for recycling/treatment/disposal.

The CCF facility has been developed on a long, relatively narrow property. More than one-hundred (100) buildings/rooms have been built during the 1920's through 1960's, primarily from the north end of the site progressing to the south end. The property is nearly covered with buildings, roadways and parking areas with little open area remaining. The facility plot plan is depicted on Figure 2.

The facility employs 466 full-time employees and operates a production department twenty-four (24) hours per day on three (3) shifts, five and one-half (5 1/2) days per week.

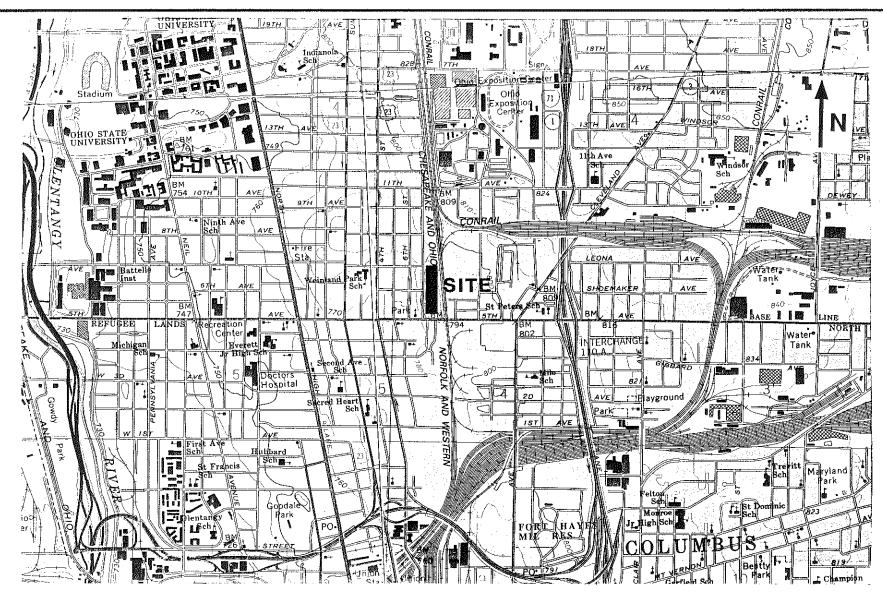
1.2 Hazardous Waste Container Storage Area

Columbus Coated Fabrics filed a revised Hazardous Waste Permit Application (Part A) on September 30, 1982 which listed one (1) hazardous waste management unit, a hazardous waste container storage area (HWCSA), on line number 1 of the application. This is the hazardous waste management unit which will be closed in accordance with the closure plan presented herein. The U.S.EPA issued a Hazardous Waste Management Permit (Part B) to CCF for the HWCSA on September 27, 1984. The process design capacity of the HWCSA is 24,750 gallons (i.e., up to 450 55-gallon drums).

The hazardous waste container storage area is located inside

-2-

COLUMBUS COATED FABRICS - CLOSURE PLAN FIGURE 1 SITE LOCATION



SCALE

1" = 2,000'

T.M. GATES, INC.

building No. 37 with access through building No. 59 at the southeastern portion of the facility as shown on Figure 2. The precise location of the HWCSA is latitude 39° 59' 23" and longitude 82° 59' 43". The HWCSA is inside a brick building which is approximately 32 feet wide, 50 feet long and 20 feet high. The building has a 6 inch thick, reinforced concrete floor, 4 inch high (minimum) concrete curbs and a composite steel deck roof. Construction details of the HWCSA are shown on Figure 3.

1.3 List of Hazardous Wastes

The Columbus Coated Fabrics facility is permitted to store the hazardous wastes listed on Table 1 in containers at the hazardous waste container storage area. The hazardous constituents for which the wastes are listed are also included on Table 1.

Hazardous wastes and constituents have been determined throughout the operating life of the HWCSA by waste analysis in accordance with the Part B Permit.

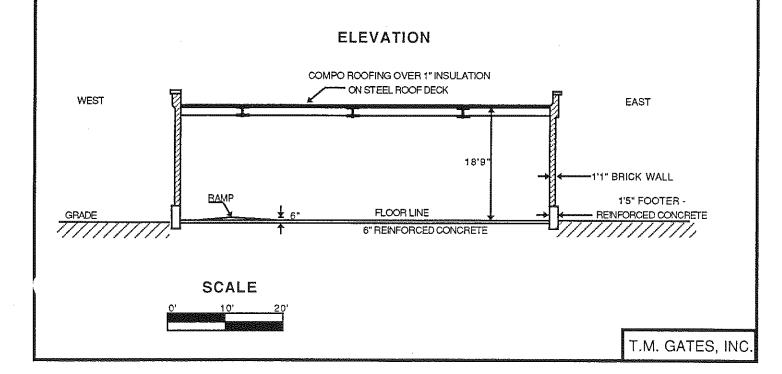
2.0 CLOSURE PROCEDURES

2.1 Removal of Waste Inventory

All hazardous wastes will be removed from the HWCSA at commencement of the field closure activities. Hazardous waste containers in the storage area are DOT 17E and 17H drums with 55-gallon capacity. Four (4) drums containing wastes are handled on each wooden pallet. Pallets of waste drums are carried by forklift out of the HWCSA at the southwest corner of the building, south on the plant roadway approximately one-hundred (100) feet to the warehouse/loading dock in building No. 85 (access by concrete ramp). Pallets of waste drums are loaded onto enclosed truck trailers at the south loading dock. The loading dock is

COLUMBUS COATED FABRICS - CLOSURE PLAN FIGURE 3 HAZARDOUS WASTE CONTAINER STORAGE AREA CONSTRUCTION DETAILS

PLAN 4" HIGH CURB WINDOW : AND DOOR UTILITY BLDG. 37. **FCCM** HAZARDOUS WASTE CONTAINER STORAGE AREA 12" HIGH CURB AND DOOR **SCALE** 12" HIGH BLDG. 59 RAMP SUMP BARRIER OVERHEAD DOOR



COLUMBUS COATED FABRICS - CLOSURE PLAN TABLE 1 PERMITTED HAZARDOUS WASTE IDENTIFICATION

U.S. EPA HAZARDOUS WASTE NUMBER	HAZARDOUS WASTE	HAZARDOUS CONSTITUENTS (BASIS FOR LISTING HAZARDOUS WASTE)
D006	Cadmium (dust stop waste)	Cadmium
F002 (1)	Spent Halogenated Solvents	Methylene Chloride and 1,1,1-Trichloroethane
F003 (1)	Spent Non-halogenated Solvents	Cyclohexane
F005	Still bottoms from recovery of spent non-halogenated solvents	Methyl Ethyl Ketone
F006	Wastewater treatment sludge from electroplating operations	Hexavalent Chromium

Notes: (1) These wastes have never been generated or stored at the facility, although they are permitted.

approximately one-hundred (100) feet north of gate 5 which accesses Fifth Avenue, a main city thoroughfare. CCF forklifts will be operated by trained facility personnel. It is estimated that approximately one-hundred fifty (150) drums will be stored on the HWCSA at the time closure begins.

The hazardous wastes removed from the HWCSA will be transported off-site for recycling/treatment/disposal in accordance with RCRA regulations. Permitted hazardous waste transporters and recycling/treatment/disposal facilities which are used by CCF are listed on Table 2. All hazardous waste shipments will be accompanied by appropriate hazardous waste manifests and, if necessary, land-disposal notification/certification forms will be included. Columbus Coated Fabrics maintains hazardous waste transportation/disposal records for a period of five (5) years.

2.2 Closure Schedule

Columbus Coated Fabrics will remove or dispose of all inventoried hazardous waste from the HWCSA in accordance with the approved Closure Plan within ninety (90) days after the Director of Ohio EPA approves the Closure Plan. Final closure activities will be completed in accordance with the approved Closure Plan within one-hundred eighty (180) days after approval.

The closure schedule which includes all critical milestones is shown in Figure 4. Columbus Coated Fabrics or the independent registered Professional Engineer will notify the Ohio EPA Central District Office at least five (5) business days in advance of field sampling activities.

2.3 Air Emissions and Wastewater Discharge

Closure of the HWCSA will not generate potentially dangerous air emissions since all hazardous wastes are contained in closed drums. Wastewater generated by steam pressure

COLUMBUS COATED FABRICS - CLOSURE PLAN TABLE 2

PERMITTED HAZARDOUS WASTE TREATMENT/DISPOSAL/TRANSPORTATION SERVICES

LIQUID FUELS BLENDING AND/OR RECYCLING

Avganic Industries 114 N. Main St.

Cottage Grove, WI 53527

EPA ID#: WID 000 808 824

Chemical Solvents, Inc. 1010 Denison Ave. Cleveland, OH 44109 EPA ID# OHD 980 897 656

North East Chemical Corp. 330 Monroe Ave. Cleveland, OH 44113 EPA ID#: OHD 980 681 571

Rhone-Poulenc Basic Chem. Co. 2000 Michigan Hammond, IN 46320 EPA ID#: IND 001 859 032

Safety-Kleen Corp. 633 E. 138th St Dolton, IL 60410

EPA ID#: ILD 980 613 913

Holnam, Inc./Safety-Kleen Corp. Rte. 2, Box 418, Highway 453 South Holly Hill, SC 29059

EPA ID#: SCD 003 368 891

Systech Environmental Corp. County Road 176

Paulding, OH 45879 EPA ID#: OHD 005 048 947

LIQUID & SOLIDS TREATMENT & DISPOSAL

CHEM-MET Services 18550 Allen Rd. Wyandotte, MI 48192

EPA ID#: MID 096 963 194

Cyanokem 1238 Schaefer Highway Detroit, MI 48227

Petro-Chem Processing 515 Lycaste Detroit, MI 48214

EPA ID#: MID 980 615 298

EPA ID#: MID 098 011 992

Benton, AR 72015 EPA ID# ARD 069 748 192

Rineco Chemical Industries

1007 Vulcan Road-Haskell

LIQUID TREATMENT.

DISPOSAL & FUEL BLENDING

Research Oil 2655 Transport Rd. Cleveland, OH 44115 EPA ID#: OHD 004 178 612 Usher Oil Company 9000 Roselawn Dr. Detroit, MI 48204 EPA ID# MID 016 985 814

LIQUID TREATMENT & DISPOSAL

Tricil Environmental Services

4350 Edgwin Dr. Hillard, OH 43028

EPA ID# OHD 081 290 611

TABLE 2 (cont.)

TRANSPORATION

Chem Freight, Inc. 6600 Bessemer Ave. Cleveland, OH 44127 EPA ID#: OHD 986 966 190

Chemical Solvents Inc. 3751 Jennings Rd. Cleveland, OH 44109 EPA ID#: OHD 052 937 885

Cousins Waste Control 1801 Matzinger Rd. Toledo, Ohio 43612 EPA ID#: OHD 068 081 595

Mr. Frank, Inc. 4747 Lincoln Mall Dr., Suite 603 Matteson, IL 60443 EPA ID#: ILD 984 775 049

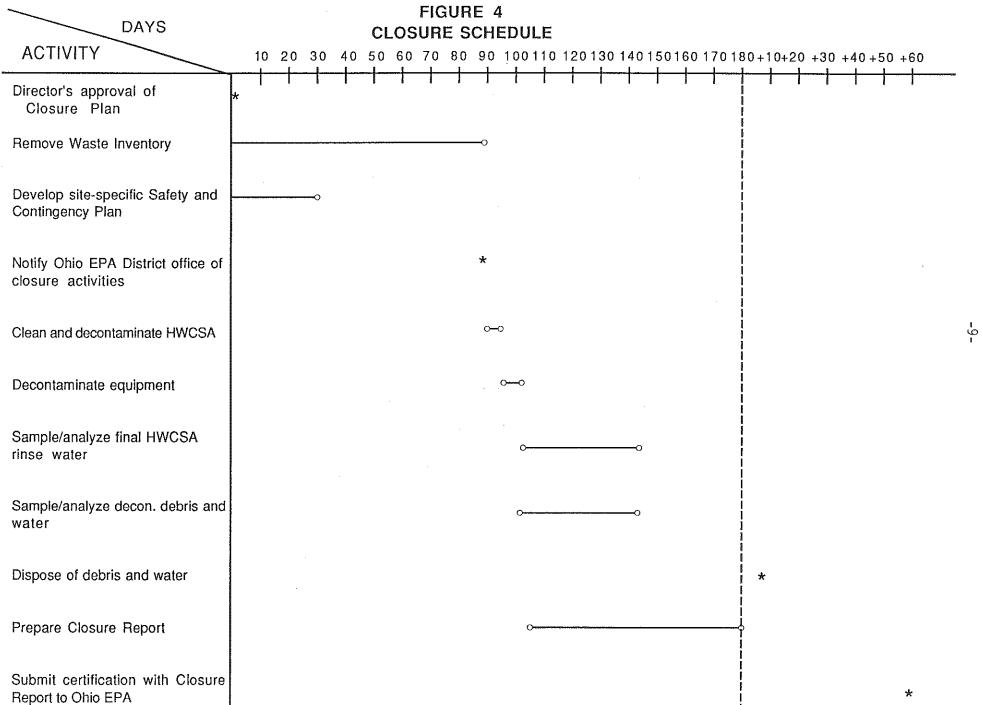
Indianhead Truck Line, Inc. 1947 W. County Rd. C Roseville, MN 55113 EPA ID#: MND 006 963 318 Metropolitan Environmental Corp. 310 W. Market Selina, OH 45822 EPA ID# INT 190 010 397

P&F Trucking 400 Marne Dr., N.E. Newark, OH 43055 EPA ID#: OHD 980 613 368

Schneider Tank Lines 3061 S. Ridge Rd. Green Bay, WI 54306 EPA ID#: WID 980 904 742

Tricil Environmental Services 4350 Edgwin Dr. Hilliard, OH 43028 EPA ID#: OHD 081 290 611

COLUMBUS COATED FABRICS-CLOSURE PLAN FIGURE 4



washing and rinsing of the concrete pad will be contained on the pad and vacuumed promptly. Therefore, there will be no wastewater discharge. The HWCSA is located in an enclosed building and under roof, so there will be no contact with rainwater or surface water.

2.4 Safety and Fire Prevention

2.4.1 Contractor Site Safety and Contingency Plan - All T. M. Gates, Inc. (consultant/closure contractor to CCF) personnel comply with the requirements of 29 CFR 1910 regarding OSHA-regulated hazardous waste operations. These requirements include personnel training, medical surveillance, standard work practices, personal protective equipment, on-site monitoring, and personnel/equipment decontamination.

A copy of the T. M. Gates, Inc. Generic Site Safety and Contingency Plan (SSCP) is included as Appendix A of this submission. The Generic SSCP will be finalized after approval of the Closure Plan for implementation during field closure activities. All contractor personnel will be familiar with the SSCP and sign their acceptance of it.

2.4.2 <u>Facility Safety Plans/Procedures</u> - In addition to the contractor's SSCP for specific closure activities, Columbus Coated Fabrics has implemented extensive plans/programs in accordance with their Part B Permit for hazardous waste storage. These safety plans and procedures include:

Security Requirements

- 24-hour security by trained guards
- facility access control and remote camera monitoring
- visitor's pass and sign in/out requirements
- perimeter fence, gates and signs

Daily Inspection

- safety/emergency equipment
- security devices
- container storage area
- loading dock area

Spill Prevention Control and Countermeasures Plan

- chemical product/waste inventory
- spill prevention procedures and equipment
- emergency response procedures and equipment
- discharge contingency plan
- notification/emergency procedures and personnel
- facility evacuation plans
- incident follow-up reporting
- coordination with local emergency officials
- emergency coordinator and operation alert

Personnel Training

- RCRA and OSHA
- emergency action (fire brigade)
- employee training manuals
- list of trained personnel
- 2.4.3 <u>Safety</u>, <u>Emergency and Rescue Equipment</u> During closure of the HWCSA, Columbus Coated Fabrics will post a fire watch (trained member of fire brigade) to monitor safety conditions and practices. Safety equipment to be used or available during closure activities includes:

Personal Protective Equipment (PPE)

- Tyvek coveralls, safety boots, rubber outer boots
- safety glasses/shields
- hard hat
- nitrile gloves
- access to full face respirator with dust/mist filters and organic vapor cartridges

It should be noted that the closure schedule and cost estimate include thirty (30) minutes per person per shift for decontamination of their PPE. Disposable coveralls, boots, gloves, etc. will be discarded after use in drums for hazardous waste treatment/disposal as debris, if appropriate.

The CCF facility maintains a full compliment of emergency, safety and rescue equipment which is immediately available for use by trained personnel in case of an emergency. The equipment listed below is maintained at its regular location and will, therefore, not require decontamination unless it is deployed:

Facility Safety Equipment

- ABC rated fire extinguishers
- portable pumps
- fire-fighting hoses
- sprinkler system
- emergency shower
- non-sparking tools, shovels, etc.
- first-aid equipment

Delineation of the exclusion, contamination reduction and support zones is detailed in the contractor's SSCP. Specific personnel decontamination procedures are also prescribed in the SSCP.

2.5 HWCSA Cleaning and Decontamination

After all drums and pallets have been removed from the HWCSA, safety personnel will check for organic vapors prior to entry. Since a kerosene-fired steam pressure washer will be used, the CCF fire watch will be posted during all "hot work". The floor and lower walls will be swept and hand scraped to remove dust and debris. All solid material will be contained in open-head drums for subsequent analysis/disposition. concrete floor of the HWCSA will be steam pressure detergent washed and triple rinsed. The steam pressure washer generates one (1) gallon per minute steam at five-hundred (500) pounds per square inch pressure. During operation of the steam pressure washer, washwater/rinse water will be contained and directed with a squeegee and vacuumed with an industrial wet vacuum. The concrete dike wall surrounding the HWCSA will offer additional containment of wash and rinse Periodically, the contents of the wet vac canister will be emptied into drums for subsequent analysis/disposition.

A grab sample of the final rinse water will be collected for subsequent analysis to document thorough decontamination.

- 2.5.1 <u>Equipment List</u> Equipment to be used during cleaning/decontamination of the HWCSA is listed below:
 - OVA, PID or oxygen/explosimeter
 - steam pressure washer
 - industrial wet vacuum
 - broom, shovel, scraper and squeegee
 - water supply hose
 - electric extension cord
 - open-head, 3-ring, DOT approved hazardous waste drums to contain solids and liquids
- 2.5.2 <u>Equipment Decontamination</u> Equipment which may have come in contact with hazardous wastes will be

decontaminated by scraping debris from exposed surfaces, steam pressure washing and triple rinsing. Collected debris and wash/rinse water will be contained in drums for subsequent analysis/disposition.

All contained debris and water will be managed as hazardous waste pending laboratory analytical results. Final disposition will be determined based upon analytical results. It is estimated that approximately three-hundred (300) gallons (i.e., 6 55-gallon drums) of debris and water will be collected from all cleaning and decontamination procedures. Decontamination of all equipment will be accomplished near the exit of the HWCSA within the curb, under roof. Decontamination wash and rinse water will be contained and vacuumed. In this manner, potentially contaminated equipment/personnel will not leave the contained HWCSA until thoroughly decontaminated.

2.6 Sampling and Analytical Procedures

A water sample (sub-samples) will be collected from the final pad rinse (grab sample) for laboratory chemical analysis in order to document thorough decontamination of the HWCSA. Samples will also be collected from drums of solid debris, washwater and decontamination rinse water for laboratory chemical analysis in order to determine their appropriate disposition. In the meantime, all drums will be managed as hazardous waste. All samples will be grab samples.

All samples will be analyzed for the hazardous constituents of wastes generated by the facility and stored at the HWCSA. The constituents for analysis and laboratory analytical methods are prescribed in Table 3.

All grab samples will be collected with equipment constructed of stainless steel, glass or teflon in accordance with sampling methods prescribed in U.S.EPA SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition" and "Characterization of Hazardous Waste Sites - A Methods Manual: Volume II, Available Methods, Second Edition".

COLUMBUS COATED FABRICS - CLOSURE PLAN TABLE 3 SAMPLE ANALYTICAL PARAMETERS AND TEST METHODS

EPA SW-846 Test Method

ANALYTICAL PARAMETERS	<u>S</u> (EPA SW-846 Test Me olid Sample	Liquid Sample
Barium	1311	(non-volatile)	6010
Cadmium	1311	(non-volatile)	6010
Chromium	1311	(non-volatile)	6010
Hexavalent Chromium	basic (alkalin	e) digestion procedure	7196
Lead	1311	(non-volatile)	7421
Selenium	1311	(non-volatile)	7740
Ethyl Acetate		5030	8240
Methyl Ethyl Ketone		5030	8240
Methyl Isobutyl Ketone		5030	8240
Tetrahydrofuran (butylene oxide)	1	5030	8240
Xylene		5030	8240
Hydrochloric Acid (pH)		9045	9040
Cyanide (Total CN)		9010	9010
Ferric Chloride (Iron)		3050	6010
Zinc Chloride (Zinc)		3050	6010

Note: Method 5030 (purge and trap) by methanolic extraction for solid samples

Laboratory analytical procedures, as prescribed in Table 3 are in accordance with U.S.EPA SW-846. The quality assurance/quality control (QA/QC) protocols for sample container preparation, shipping/handling under chain-of-custody and laboratory chemical analysis will be in accordance with written QA/QC plans for sample collection and laboratory chemical analysis. The laboratory's QA/QC plan has received certification, accreditation, approval or a successful audit from U.S.EPA Region V as well as numerous State and Federal environmental regulatory agencies. Their QA/QC plan includes all of the elements prescribed by SW-846.

Since the HWCSA is an engineered structure with a six (6) inch thick reinforced concrete floor, four (4) inch minimum height concrete curbs and is inside a building under roof, the containment of any potential leaks or spills is excellent. In addition, there have been no reported leaks or spills in the HWCSA to challenge the excellent containment. Therefore, the closure of this HWCSA will be documented by analysis of the final pad rinse water and no further sampling is believed to be warranted.

2.7 Closure Performance Standards

- 2.7.1 <u>HWCSA Final Rinse</u> The closure performance standards for "clean closure" of the HWCSA will be based upon analysis of the final rinse water sample, compared to the performance standards listed in Table 4. These performance standards are fifteen (15) times the maximum contaminant level (MCL) or maximum containment level goal (MCLG). Performance standards are set at one (1) milligram per liter (mg/l) if no MCL or MCLG is published, or if the function of fifteen (15) times the MCL or MCLG exceeds one (1) mg/l.
- 2.7.2 <u>Contained Debris and Wash/Rinse Water</u> As previously mentioned, all debris and wash/rinse water which is contained during cleaning/decontamination of the HWCSA and equipment

COLUMBUS COATED FABRICS - CLOSURE PLAN TABLE 4 CLOSURE PERFORMANCE STANDARDS

CONSTITUENT	MCL (mg/L)	MCLG (mg/L)	PERFORMANCE STANDARD (mg/L)
Barium	2 (proposed)	2	1.0
Cadmium	0.01		0.15
Chromium	0.05		0.75
Hexavalent Chromium			1.0
Lead	0.05		0.75
Selenium	0.01	0.05 (proposed)	0.15
Ethyl Acetate		. 77	1.0
Methyl Ethyl Ketone	0.005 (proposed)		1.0
Methyl Isobutyl Ketone			1.0
Tetrahydrofuran (butylene oxide)			1.0
Xylene	10 (proposed)	10 (proposed)	1.0
Hydrochloric Acid (pH)			5-9 S.U.
Cyanide (Total CN)	0.2 (proposed)	0.2 (proposed)	1.0
Ferric Chloride (Iron)			1.0
Zinc Chloride (Zinc)			1.0

Note: proposed standards are scheduled to become effective in July, 1992

will be managed as hazardous waste pending laboratory chemical analysis. Final disposition of the debris and water will be determined by RCRA hazardous waste identification and listing regulations.

2.8 Closure Certification

Certification of closure will be submitted by both the owner and the qualified, independent Ohio registered Professional Engineer, in accordance with Ohio Administrative Code and Code of Federal Regulation signature requirements including exact wording of the certification statement. The closure report outline is suggested as follows:

1.0 Introduction

- 1.1 Description of Facility
- 1.2 Description of HWCSA
- 1.3 Reference to approved Closure Plan

2.0 Closure of HWCSA

- 2.1 Removal of Final Waste Inventory
- 2.2 Cleaning/Decontamination of HWCSA
- 3.0 Sample Collection and Analysis
 - 3.1 Final Rinse Water Sample
 - 3.2 Collected Debris and Wash/Rinse Water Sample
- 4.0 Final Disposition of Wastes Generated During Closure
- 5.0 Photographic Documentation
- 6.0 Closure Certification Statement and Signatures

APPENDICES

Manifests Documenting Disposal of Final Waste Inventory

Laboratory Analytical Reports and QA/QC Documentation

Documentation of Disposal for Wastes Generated During Closure

The Closure Report, including certification, will be submitted within sixty (60) days of completion of closure.

2.9 Status of Facility After Closure

After certification of closure of the hazardous waste container storage area, Columbus Coated Fabrics will operate a temporary storage area (i.e., less than 90 day storage) in building No. 37. In other words, CCF will operate only as a generator of hazardous wastes.

Upon completion of closure, CCF will submit a written withdrawal request for their hazardous waste storage permit.

2.10 Closure Cost Estimate

A detailed written cost estimate for the activities described in this Closure Plan is included as Appendix B.

APPENDIX A

GENERIC SITE SAFETY AND CONTINGENCY PLAN

TYPE GENERIC SITE SAFETY AND CONTINGENCY PLAN (SSCP)

TITLE

SITE SAFETY AND CONTINGENCY PLAN

COMPANY

CITY, STATE

EPA ID#

T. M. GATES, INC. 787 ROUND BOTTOM ROAD MILFORD, OHIO 45150

(DATE)

SITE SAFETY AND CONTINGENCY PLAN

SITE SAFETY AND CONTINGENCY PLANS PREPARED BY T. M. GATES, INC. ARE INTENDED SOLELY FOR USE BY T. M. GATES, INC. EMPLOYEES, AND ARE TO BE USED IN CONJUNCTION WITH T. M. GATES, INC. OCCUPATIONAL HEALTH AND SAFETY PROGRAMS AND POLICIES. EXCLUDING NEGLIGENCE, T. M. GATES, INC. ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR NON-EMPLOYEES OF T. M. GATES, INC.

THE SITE SAFETY AND CONTINGENCY PLAN DESCRIBED HEREIN IS SUBJECT TO REVIEW AND REVISION BASED ON ACTUAL CONDITIONS ENCOUNTERED IN THE FIELD DURING SITE CHARACTERIZATION ACTIVITIES.

BEFORE SITE OPERATIONS BEGIN ALL EMPLOYEES INVOLVED IN THESE OPERATIONS WILL HAVE READ AND UNDERSTOOD THIS SITE SAFETY PLAN AND ALL REVISIONS.

THE FOLLOWING SITE PERSONNEL HAVE READ AND BEEN BRIEFED ON THE ENCLOSED SITE SAFETY AND CONTINGENCY PLAN.

Project Manager	date
Site Safety Officer	 date
Project Geologist	date
Operating Engineer	date

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1.0 SITE DESCRIPTION

Date:
Site Name:
Location:
EPA ID#:
Size: area in acres

1.1 Observed Hazards and Hazard Indications

List can include visible vapor clouds, dead animals and/or vegetation, potentially explosive or flammable situations, confined space entry, holes or ditches, slippery surfaces, steep grades, uneven terrain, precariously positioned objects such as drums or boards that may fall, unstable surfaces such as walls or flooring that may give way, heat, cold, irritating plants, poisonous animals.

1.2 Suspected Chemicals Present

list chemicals present, which will be used in Table 3

1.3 Area Affected

acreage and description

1.4 Site Geography

Geography to include elevation of the land, slope, nearest surface water, and zoning.

The maximum elevation of the _____ facility is ____ ft. The ground surface slopes (slightly, moderately) to the ___. The surrounding population is (residential, commercial, industrial, agricultural) to

the and to the The nearest surface
water is ft to the Access to the side is via
d F 187 - ath as Canditians
1.5 Weather Conditions
The site is located in a (<u>continental</u> , <u>arid</u> , <u>tropical</u> , <u>etc</u> .) zone with an average annual rainfall of inches. Average winter temperature is while average summer temperature is
1.6 Entry Objectives
Brief description of activities.
Each activity will be used in Table 1.
1.7 Expected Project Duration
weeks.
weeks.
2.0 KEY PROJECT PERSONNEL
Use what is needed, delete what is not.
Ose what is needed, delete what is not.
Principal
Project Manager
Safety Officer
Project Engineer
Project Geologist Operating Engineer
Operating Engineer
Federal Agency Representatives
name phone number

State Agency Representatives

name	phone number
Owner Representatives name	phone number
3.0 SITE SAFETY AND HEALTH PLA	<u>N</u>
name is the directly responsible to the Precommendations on site.	
3.1 Emergency Medical Care	
name(s) (is, are) the obstances involved has been depicted by the contacted on _/_/_ and briefed of the contacted and the substances involved.	cated minutes from the directions to emergency act location). Dr was on the situation, the potentia
Local ambulance service is ava phone #	ilable from a
First-aid equipment is availabl locations:	e on-site at the following
First-aid kit - Fire Extinguisher - Emergency Eye Wash - Emergency Shower -	

3.2 Emergency Phone Numbers

Hospital	p
Ambulance	
Fire	
Police	
Airport	

See Figure 1 for the exact location of all emergency services.

Prepare Figure 1, street map with emergency locations highlighted.

4.0 SAFETY AND HEALTH RISK ANALYSIS VERSUS SITE ACTIVITY

Table 1 plots the site activities to be performed against potential health and safety hazards anticipated. Table 2 lists activities and potential hazards with precautions to be implemented.

Prepare Table 1 - Site Activity versus Potential Health and Safety Hazards (see example)

Prepare Table 2 - Potential Hazards and Precautions (see example) After we have amassed enough creative Precautions we will automate Table 2 so you will only have to list Activity and Potential Hazards

Example activities include site characterization soil sampling, with a hand auger, tank testing, installing monitoring wells, soil excavation etc.

Example potential hazards include inhalation hazard, contact with contaminated soils, noise hazard, heat stress, electrical, potential fire/explosion, contact with contaminated liquids, cold stress, collapsing of structure on persons, physical injury, overhead power lines, buried tanks, underground pipes, skin hazard, ventilation problem, spillage of liquids, vandalism,

EXAMPLE

POTENTIAL HAZARDS AND PRECAUTIONS

TABLE 2

SAFETY AND HEALTH RISK ANALYSIS VERSUS SITE TASK/OPERATION

ACTIVITY	POTENTIAL HAZARD		PRECAUTIONS .
Surface Soil Sampling	Contact with contamina- ted soil	e e	Do not kneel on ground Do not walk through discolored soils Follow decontamination procedures outlined in section [H]
	Heat Stress	• •	Increase liquid consumption to replace water lost during sweating Increase number of rest breaks Increase salt consumption in diet. DO NOT USE SALT TABLETS.
Surface Water (River)	Contact with contamina- ted water and sediment	8	Use personal protective equipment noted in section [D]
	Drowning	•	Use USCG approved life jackets

Ins	stallation
of	Monitoring
W	ells

Physical injury

- Exercise extreme caution when in vicinity of rotating equipment
- Minimize number of personnel in immediate vicinity of drilling equipment

Contact with contaminated soils and vapors

- Use all required personal protective equipment noted in section [D]
- Perform continuous air monitoring at the bore hole and at the breathing zone
- Upgrade level of personal protection according to established procedures
- Follow decontamination procedures outlined in section [H]

Heat Stress

See reference above

equipment freezing problems, leaks in lines, etc.

4.1 Hazardous Substance Evaluation

Table 3 presents a condensed health analysis of suspected chemicals present. Appendix 1 contains more detailed Chemical Hazard Descriptions.

Prepare Table 3 and Appendix 1, see example, of relevant hazardous substances.

The following chemicals have chart descriptions and Chemical Hazard Descriptions in the computer and only their name needs to be entered on the Blank (otherwise please develop the descriptions for your report and have them saved with the others).

Chlorodane
T-1,2-Dichloroethene
Ethyl Benzene
Hexane
Malathion
Methyl Ethyl Ketone
Mineral Spirits
Naptha
Parathion
Tetrachloroethylene
Toluene
1,1,1-Trichloroethane
Xylene

5.0 ON-SITE CONTROL

<u>name</u>, site Project Manager for T. M. Gates, Inc., has been designated to coordinate access control and security on the site. A safe perimeter will be established <u>feet</u> outward from the controlled area. No unauthorized persons will be

allowed within this area. The on-site command post and staging area will be established in the immediate area **direction** of the site activity area. The prevailing wind conditions are to the **direction**. This location is upwind from the contaminated area.

EXAMPLE A - To be used when site activities require multiple zones of control.

Figure 2 shows a sketch of the area labelling zones of control. Control boundaries will be established around the zones of control. The three levels of zones of concern are the Exclusion Zone, the Contamination Reduction Zone, and the Support Zone which are defined as follows:

- Exclusion Zone: Used in highly contaminated area being subjected to sampling, monitoring, and/or remediation.
 Usually the area in which active excavation and removal of contaminated material is occurring.
- Contamination Reduction Zone: ten (10) foot wide area surrounding the exclusion zone.
- Support Zone: all other areas.

Zone boundaries are identified by:

- Exclusion Zone-red boundary tape, traffic cones, fence.
- Contamination Reduction Zone-red tape, traffic cones, fence.
- Support Zone-no markings

This site utilizes ____ and ___ zones of concern at this time, as indicated in Figure 2.

EXAMPLE B - To be used when zones of control are not necessary.

Figure 2 is a facility site plan indicating where activities will be performed. During the majority of site activities, direct contact with hazardous chemicals is not anticipated. As a consequence, subdivision of the site into zones of concern (i.e., Exclusion Zone, Contamination Reduction Zone and Support Zone) is not necessary. The Project Manager is responsible for assigning levels of protection necessary for site activities and for implementation of zones of control if it is warranted by site conditions. If zones of control are implemented the SSCP will be revised at that time.

6.0 ENVIRONMENTAL MONITORING PROCEDURES

On site air quality monitoring will be conducted for L.E.L. of Volatile Organic Compounds.

- 1. Pre-Work Survey: An air survey will be taken on a daily basis at all contaminated zone designations prior to personnel access.
 - Perimeter Air Monitoring will consist of at least one test per side of the work or stockpile area. At least one test will be conducted directly downwind of the are being tested.
 - ii. Suspected hot-spots within each contaminated zone will be monitored.

2. Construction Air Monitoring:

- i. Test meters will be available at all times during construction or excavation activities.
- ii. Periodic air monitoring of the zone will be conducted at such times as:
 - During excavation should vapors be observed.
 - During excavation should liquids or wet soil

materials be encountered.

- Prior to any worker entering an excavation pit.
- Prior to any confined space entry.
- 3. Action Concentration Level: An exceedance of an action concentration level will require personnel in those areas to be removed or equipped with suitable respiratory protection equipment
 - i. Lower Explosive Limit values in excess of 20% L.E.L.

The following environmental monitoring instruments shall be used on site at the specified intervals.

about on total at the opposition intervalor
Combustible Gas indicator Continuous, hourly daily, as needed
02 Monitor Continuous, hourly daily, as needed
HNU/OVA Continuous, hourly daily, as needed
IR Spectrophometer Continuous, hourly daily, as needed
UV Photoionization Detector Continuous, hourly daily, as needed
Flame Ionization Detector Continuous, hourly daily, as needed

- - - - - - - Continuous, hourly

daily, as needed

7.0 PERSONAL PROTECTIVE EQUIPMENT

EXAMPLE A - used with multiple zones of control.

Based on an evaluation of potential hazards, the following levels of personal protection have been designated for the zones of concern in Figure 2 and the activities listed in Table 1.

ZONES OF CONCERN ACTIVITIES LEVEL OF PROTECTION

EXAMPLE B - used when zones of control are not necessary.

Based on an evaluation of the potential hazards, Level A Protection will be utilized across the site.

Specific protective equipment for each level of protection is as follows:

Level A: Fully-encapsulating chemical resistant suit Inner chemical-resistant gloves
Chemical-resistant safety boots/shoes
Pressure-demand full-facepiece SCBA,
Pressure-demand supplied-air respirator with escape SCBA hard hat, Disposable coveralls, two-way radio

Level B: Pressure-demand, full facepiece SCBA
Pressure-demand supplied-air respirator with
escape SCBA
Hooded, one or two piece chemical splash unit
Disposable, chemical resistant coveralls
Inner and outer chemical-resistant gloves
Chemical-resistant safety boots/shoes
Hard hat, face shield, two-way radio,

<u>Level C</u> :	Full-facepiece, respirator	air-puritying,	canister ty	pe
	Hooded, one or Disposable cher Overalls and lon	nical-resistant c g-sleeved jacket	overalls	
	Inner and outer Chemical-resistal Hard hat, two-wa	nt safety boots.	_	
<u>Level D</u> :	The following ed but not necessar Half-face cartric Coveralls Safety boots/sho Hard hat Respira	ily worn at all ti dge es	mes	ble
	ring protective ca otection from the	-	•	to
Subs	tance		<u>Material</u>	
III.	 .			
62113-61111				
canisters c	fying respirators r cartridges for o			
will be use	d as appropriate.			
	NG CONTROLS WIL HEALTH HAZARDS		EVER PRACTICAE	3LE

ALL EMPLOYEES USING PERSONAL PROTECTIVE EQUIPMENT WILL BE AWARE OF THE PROPER SELECTION, USE, AND MAINTENANCE OF SUCH EQUIPMENT.

NO CHANGES TO THE SPECIFIED LEVELS OF PROTECTION SHALL BE MADE WITHOUT THE APPROVAL OF THE SITE SAFETY OFFICER AND THE PROJECT MANAGER.

8.0 HEALTH SURVEILLANCE PROGRAM

All employees involved with this project work will participate in a health surveillance program under the direction of an Occupational Physician. This program will include a pre-project medical evaluation and a post-project follow-up examination (when required). The pre-project evaluation will consist of the following:

- Comprehensive Health and Exposure History
- Physical Evaluation
- Urinalysis
- SMAC 24 including total cholesterol and High Density Lipoproteins and GGTP
- Complete blood count (CBC), differential, hematocrit, and hemoglobin
- Chest X-ray
- Pulmonary Function Testing
- Audiometry
- Vision Testing (distant, near, color)

Additionally, each employee will be evaluated to determine if they are physically able to perform work while using respiratory protective equipment in compliance with 29 CFT Part 1910.134 and ANSI 288.2 - 1980.

APPENDIX A

CHEMICAL HAZARD DESCRIPTIONS

CHEMICAL HAZARD DESCRIPTIONS - EXAMPLE

ETHYL BENZENE

SYNONYMS

Phenylethane; Ethylbenzol

C₂ H₅ C₆ H₅

CODES

CAS 100-41-4

NIOSH RTECS DA0700000

DOT UN1175 Hazardous Material Emergency

Response Guidebook No. 26

EXPOSURE

LIMITS

OSHA PEL 8-hour time weighted average 100 ppm

Immediately dangerous to life or health after

30 minutes 2,000 ppm.

PHYSICAL DESCRIP-

TION/PROPERTIES

Colorless liquid with an aromatic odor.

Solubility 0.015%. Flash point 59 F. Upper

explosive limit 6.7% in air. Lower explosive limit

1.0% in air.

PERSONAL PROTEC-

TION AND SANITARY PROTECTION

Wear appropriate <u>clothing</u> to prevent repeated or prolonged skin contact. Wear <u>eye protection</u> to prevent reasonable probability of eye contact.

Wash promptly when skin becomes contaminated. Remove immediately any clothing that becomes wet

to avoid flammability hazard.

RESPIRATOR

<u>SELECTION</u>

Any powered air-purifying respirator with

organic vapor cartridges to 1,000 ppm.

HEALTH HAZARDS

Routes of entry include inhalation, ingestion, skin and/or eye contact. Symptoms of exposure include irritation of eyes and mucous membrane, headache, dermatitis, narcosis, coma. Target organs include eyes, upper respiratory system, skin, central

nervous system.

FIRST AID

EYE - immediately wash the eye with large amounts of water, occasionally lifting the lower and upper lids; get medical attention immediately; contact lenses should not be worn when working with ethyl benzene.

<u>SKIN</u> - flush the contaminated skin with water promptly; immediately remove non-impervious clothing; if irritation persists, get medical attention.

BREATH - if a person breathes in large amounts of ethyl benzene, move to fresh air at once; if breathing has stopped, perform artificial respiration; keep warm and at rest; get medical attention as soon as possible.

<u>SWALLOW</u> - get medical attention immediately.

EMERGENCY NUMBERS AND PERSONNEL

(POST NEAR PHONE)

Company

Site Name

Applicable ID#

EMERGENCY NUMBERS

Hospital - Name Phone Number

Ambulance - Name Phone

Number

Fire - Name Phone

Number

Police - Name Phone

Number

Airport - Name Phone

Number

FEDERAL AGENCY REPRESENTATIVES

Name Phone Number

STATE AGENCY REPRESENTATIVES

Name Phone Number

OWNER REPRESENTATIVES

Name Phone Number

KEY PROJECT PERSONNEL

Principal

Project Manager

Safety Officer

Project Engineer

Project Geologist

Operating Engineer

APPENDIX B

SITE SAFETY PROCEDURES

B.1 COMMUNICATION PROCEDURES

A horn blast is the emergency signal to indicate that all personnel should evacuate the Exclusion Zone.

The following standard hand signals will be used on site.

- Hand gripping throat out of air, can't breathe
- Grip partners wrist or both hands around waist leave area immediately
- · Hands on top of head need assistance
- Thumbs up OK, I'm all right, I understand
- Thumbs down No, negative

Telephone communication to the Command Post should be established as soon as practicable. The phone number is ______.

B.2 DECONTAMINATION PROCEDURES

Personnel and equipment leaving the Exclusion Zone shall be thoroughly decontaminated. The standard level C decontamination protocol shall be used with the following decontamination stations: 1) equipment drop, 2) boot and glove rinse, 3) boot and glove removal, 4) canister change, 5) contaminated clothing removal, 6) field wash.

For all injuries, first attention will be given to the preservation of life. Should time permit before emergency transportation arrives, contaminated boots, gloves, coveralls, etc. will be removed to the extent possible.

The following decontamination equipment is required: plastic drop sheets, 30 gallon container with plastic liner, 20 gallon pressure spray bottle, hand and face wash basin, long-handled soft-bristled scrub brushes, bench or stool.

Detergent and water and	or	will	be	used	as	the
decontamination solutio						

B.3 EMERGENCY PROCEDURES

The following standard emergency procedures will be used by on-site personnel. The Site Safety Officer will be notified of any on-site emergencies and be responsible for ensuring that the appropriate procedures are followed.

Personnel Injury in the Excavation Zone: Upon notification of an injury in the Exclusion Zone, the designated signal (horn blast) shall be sounded. The rescue team will enter the Exclusion Zone (if required) to remove the injured person. The Site Safety Officer and the Project Manager will evaluate the nature of the injury and the injured person will be decontaminated to the extent possible prior to removal to the Support Zone. The on-site EMT shall initiate the appropriate first aid and contact will be made with the ambulance and the designated medical facility (if required). No persons shall re-enter the Exclusion Zone until the cause of the injury or symptoms is determined.

Personnel Injury in the Support Zone: Upon notification of any injury in the Support Zone the on-site EMT will initiate the appropriate first aid and necessary follow-up. The Project Manager and the Site Safety Officer will assess the nature of the injury. If the cause of the injury or loss of the injured person does not affect the performance of the remaining site personnel, operations may continue. If the injury increases the risk to others, activities on-site will stop until the added risk is removed or minimized.

<u>Fire/Explosion</u>: Upon notification of a fire or explosion on-site, the designated emergency signal (fire alarm) will be sounded. The fire department will be alerted and all personnel moved to a safe distance from the involved area.

<u>Personal Protective Equipment Failure</u>: If any site worker experiences a failure or alteration of protective equipment that affects the level of protection afforded that employee, that person and his/her buddy will immediately leave the Exclusion Zone. Re-entry will not be permitted until the

equipment has been repaired or replaced.

Other Equipment Failure: If any other equipment on-site fails to operate properly, the Project Manager and the Site Safety Officer will be notified and will determine the effect of this failure on continuing operations at the site. If the failure affects the safety of personnel or prevents the completion of the Work Plan Tasks, all personnel will leave the Exclusion Zone until the situation is evaluated and appropriate actions taken.

Excavation: Excavation of all personnel on site will be conducted immediately without regard to equipment if extreme emergencies occur. In the event of a fire or significant spillage, emergency warning will be given by a single burst on the air horn. In the event that an excavation is necessary, three (3) bursts on the air horn will be given. All personnel should proceed to remove themselves outside the danger area through the closest upwind corridor if at all possible and assemble at a predesignated area. Wind direction should be determined in the field by observing flagging used to delineate contaminated area perimeters. When work activities are within the facility structure, each person should determine wind direction prior to entering the building.

Accidental Spillage

- a. Call for the assistance of all available crew members.
- b. Locate source of spillage and stop flow.
- c. Shut down related pumping operations.
- d. Contain spillage by diking and trenching.
- e. Recover as much spilled material as possible.
- f. Test area for extent of contamination.
- g. Notify County, State and Federal Agencies.

Accidental Toxic Gas Release:

- a. Notify all persons on site.
- b. Evacuate to upwind location.
- c. Monitor ambient air down wind.
- d. Notify emergency service personnel.

In all situations, when an on-site emergency results in evacuation of the Exclusion Zone, personnel will not re-enter until:

- 1. The conditions resulting in the emergency have been corrected.
- The hazards have been reassessed.
- 3. The Site Safety Plan has been reviewed.
- 4. Site personnel have been briefed on any changes in the Site Safety Plan.

Public Information Procedure

In the event of emergency conditions, all relevant information will be provided to Mr. ______ the owner representative. Dissemination of information will be handled in a manner that insures a single spokesperson for all emergency conditions.

B.4 DRUM HANDLING PROCEDURES

General Provisions

- There is no substitute for common sense. If you are uncertain about anything in these guidelines ask questions first.
- 2. All drums and containers used during the clean-up will meet the appropriate DOT, OSHA, and EPA regulations for the wastes they contain.
- 3. Drums and containers will be inspected and their integrity will be assured prior to being moved. Drums or containers that cannot be inspected before being moved because of inaccessible storage conditions will be moved to an accessible location and inspected prior to further handling.

- 4. Unlabeled drums and containers will be considered to contain hazardous substances and handled accordingly until the contents are positively identified and labeled.
- 5. Site operations will be organized to minimize the amount of drum or container movement.
- 6. Prior to movement of drums or containers, all employees exposed to the transfer operation will be warned of the potential hazards associated with the contents of the drums or containers.
- 7. U.S. Department of Transportation specified salvage drums or containers and suitable quantities of proper absorbent will be kept available and used in areas where spills, leaks, or ruptures may occur.
- 8. Where major spills may occur, a spill containment program will be implemented to contain and isolate the entire volume of the hazardous substance being transferred.
- 9. Drums and containers that cannot be moved without rupture, leakage, or spillage will be emptied into a sound container using a device classified for the material being transferred.
- 10. A ground-penetrating system or appropriate type of detection system or device will be used to estimate the location and depth of drums or containers.
- 11. Soil and cover material will be removed with caution to prevent drum or container rupture.
- 12. Fire extinguishing equipment meeting the requirements of 29 CFR Part 1910, Subpart L will be on hand and ready for use to control small fires.

Opening Drums and Containers

- 1. Where an airline respirator system is used, connections to the bank of air cylinders will be protected from contamination and the entire system will be protected from contamination.
- 2. Employees not actually involved in opening drums or containers will be kept at a safe distance from the drums or containers being opened.
- 3. If employees must work near or adjacent to drums or containers being opened, a suitable shield that does not interfere with the work operation will be placed between the employee and the drum or containers being opened to protect the employee in case of accidental explosion.
- 4. Controls for drum or container opening equipment, monitoring equipment, and fire suppression equipment will be located behind the explosion-resistant barrier.
- 5. Material handling equipment and hand tools will be of the type to prevent sources of ignition.
- 6. Drums and containers will be opened in such a manner that excess interior pressure will be safely relieved. If pressure cannot be relieved from a remote location, appropriate shielding will be placed between the employee and the drums or containers to reduce the risk of employee injury.
- 7. Employees will not stand upon or work from drums or containers.

APPENDIX B

CLOSURE COST ESTIMATE

COLUMBUS COATED FABRICS - CLOSURE PLAN

CLOSURE COST ESTIMATE

REMOVAL OF WASTE INVENTORY

150 drums @ non-accept transportation and treatment/disposal

\$ 37,500

HWCSA CLEANING AND DECONTAMINATION

LABOR

Senior Professional 40 hrs. @ non- 2,600
Technicians 64 hrs. @ non- 2,560

EQUIPMENT AND MATERIALS

<u>SUB-TOTAL</u> 7,160

EQUIPMENT DECONTAMINATION

LABOR

Technicians 16 hrs. @ non- 640

SAMPLE COLLECTION/ANALYSIS

HWCSA FINAL RINSE

1 water sample @ non- 500

CONTAINED DEBRIS AND WASH/RINSE WATER

1 solid sample @ non-(waste characterization)

750

2 water samples @ non-/ea. (waste characterization)

___1,300

SUB-TOTAL

2,550

DISPOSITION OF COLLECTED DEBRIS AND WASH/RINSE WATER

6 drums @ non-/drum transportation and treatment disposal

900

CLOSURE CERTIFICATION AND DOCUMENTATION REPORT

LABOR

Senior Professional 40 hrs. @ non-	2,600
Staff Professional 40 hrs. @ non-	1,600
Clerical and Drafting 40 hrs. @ non-	1,200
REPORT REPRODUCTION AND GRAPHICS	250

SUB-TOTAL 5,650

Oversight and Management Cost

8,160

TOTAL ESTIMATED CLOSURE COST \$ 62,560

CCF

(13) Closure Plan OAC 3745-55-11

(i) General Information

This plan identifies all steps necessary to close the facility at any point during its intended operating life. This facility consists of interdependent manufacturing processes; furthermore, drum storage of waste is expected to be required to the exclusion of any other regulated hazardous waste management facility. Hence, partial closure details are not applicable.

CCF will maintain an on-site copy of the closure plan and all revisions to the plan until certification of closure completeness has been submitted and accepted by the USEPA Region V and Ohio EPA. CCF will notify Region V and Ohio EPA at least 180 days prior to the date we expect to begin final closure steps.

The date of closure cannot be logically projected as this is an ongoing industrial facility - applying for a permit to temporarily store on-site.

However, if a date must be established for closure of the storage facility to store wastes for greater than 90 days, a date of 2050 will be used (irrespective of the production facility).

Upon completion of closure, CCF and an independent professional engineer will submit certifications of closure in accordance with the specifications in the approved closure plan.

This closure plan will specifically address the closure of the hazardous waste drum storage area.

Banbury mixers, the electroplating sump and the areas and equipment impacted in the handling and loading of these hazardous wastes. Although other hazardous materials (raw materials, etc.) are handled on-site and will be necessarily handled upon closure of the site, CCF will not address the closure activities associated with the hazardous materials not regulated by hazardous waste regulations.

(ii) Closure Performance Standard

This closure plan was designed (1) to ensure that the plant will not require further maintenance and controls due to hazardous waste, (2) to minimize or eliminate threats to human health and the environment due to hazardous waste and (3) to avoid escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground or surface waters or atmosphere. All of the waste handling areas are in the building on concrete paved areas, with 4" curb for containment, prohibiting migration of contaminants to underlying soils. The soil under the concrete floor will be sampled and tested for contamination from the hazardous waste stored on the concrete pad. The sampling method will be set up by a random method as prescribed in SW-846.

The equipment to be used will be an electric drill to drill through the concrete. Once the soil is exposed under the concrete, a core sampler will be used to collect 0-6" deep core

samples. It is anticipated that five (5) samples will be collected and analyzed for the following parameters:

Arsenic
Barium
Cadmium
Chromium Total
Lead
Mercury
Selenium
Silver
F002 Constituents
F003 Constituents
F005 Constituents
Corrosivity.

(iii) Maximum Waste Inventory

The maximum inventory of hazardous waste stored on-site at any given time during the operating life of the plant is 450 drums, the process design capacity for the drums storage facility.

- (iv) Inventory Removal and Disposal or Decontamination of Equipment.
- (a) Drummed waste full drums of solid waste will be transported for land disposal. Drums of liquid waste will be transported to a treatment facility (incineration).

Empty drums - any empty drums on-site which have residual hazardous waste will be rinsed with an appropriate solvent. The resultant wash waste will be drummed in 17E and 17H drums and sent to an approved disposer for final disposal.

Leaking drums - any leaking drums of waste will be enclosed in an overpack drum for transport to the appropriate facility.

(b) Equipment decontamination - after all recyclable solvents have been properly disposed of, all piping, tanks and ductwork in connection with the solvent tank wash areas will be dismantled. Any residual materials will be allowed to be drained and collected. Pipes, tanks and ductwork will be allowed to air dry. The areas surrounding the solvent wash tank areas will be steam cleaned and wash waters collected and treated off site. THE PERIMETER OF THE DECONTAMINATION WORK AREA WILL BE SURROUNDED WITH POLYETHYLENE SHEETING TO PREVENT SPLASHING AND CROSS CONTAMINATION OUTSIDE THE AREA. THE FLOOR WILL BE BARRICADED WITH ABSORBENT BOOMS.

Fork lifts, shovels and squeegees used to move drums or handle waste will be steam-cleaned as necessary. Any other equipment, gloves, cloths, etc., which may be contaminated beyond the potential for cleaning, will be drummed and disposed of at the licensed disposal facility.

- (c) Storage area decontamination the hazardous waste storage are and, as needed, the surrounding drum handling areas, will be steam-cleaned of any residual waste material. The wash waters will be collected and transported by drums or tank truck to the off-site treatment facility.
- (d) The areas surrounding, and including, the Banbury mixers, where waste is generated, will be steam-cleaned with wash waters collected and treated off-site.

- (e) The sump in the electroplating portion of the plant, where other wastes are generated, will be cleaned of any residual waste and steam-cleaned, if necessary.
- (f) Approximately 1,000 gallons of wash water and residue are anticipated to be generated during the container storage, solvent wash tank areas, Banbury mixers, and electroplating sump decontamination processes.

The last rinse waters will be analyzed for the following parameters:

Arsenic
Barium
Cadmium
Chromium Total
Lead
Mercury
Selenium
Silver
F002 Constituents
F003 Constituents
F005 Constituents
Corrosivity

These areas will be considered free of contamination only after the reinseate waters meet the Ohio EPA, Division of Solid and Hazardous Waste Management clean levels. If rinse waters indicate the area is not clean, additional washing and rinsing will be conducted followed by additional testing of the rinse waters to verify the area is free of contamination.

(g) The off-site treatment and disposal facilities to which waste will be taken, are as follows:

Disposal

CHEM-MET Services Wyandotte, Michigan EPA ID# MID096963194

Michigan Disposal, Inc. Belleville, Michigan EPA ID# MID000724831

Recycling Facility

Safety-Kleen Envirosystems Company New Caste, Kentucky EPA ID# KYD053348108

Incineration

Ross Incineration Services Grafton, Ohio EPA ID# OHD048415665

Rineco Chemical Industries Benton, Arkansas EPA ID# ARD981057870

Liquid Disposal

Tricil Environmental Services Hillard, Ohio EPA ID# OHD081290611

Usher Oil Company Detroit, Michigan EPA ID# IND980590947

Industrial Fuels & Resources South Bend, Indiana EPA ID# IND 980590947

(h) Transporters of the waste will be:

Acme Liquid Waste Westerville, Ohio EPA ID# OHD000772723

Ross Transportation Services Grafton, Ohio EPA ID# OHD980614374 Cousins Waste Control Toledo, Ohio EPA ID# OHD-06808155

Empty containers shall be transported to a drum reclaimer.

(v) Schedule for Closure

Within 90 days after generation of the final volume of process hazardous waste, final closure will be initiated. Notification to the appropriate agencies will take place 90 days before the generation of final volume of process hazardous waste. Completion of closure will be within 180 days of final closure initiation. The proposed schedule for closure is shown in Figure 12.

(vi) Post-closure Plan

Post-closure care will not be needed because no waste will be left on-site.

(vii) Closure Cost Estimate

Table 3, pg. 8 of this section, itemizes the costs associated with closure of the hazardous waste storage area.

The cost estimates will be revised upon any change in the closure plan. The cost estimates will be revised at least once annually on May 19, using the inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in its Survey of Current Business.

(/)		Days																	
(b ()	ACTIVITY	11)	20	Ju	4()	50	_ይ	70	00	90	100	110	120	130	140	150	160	17()	100
m 1° o o	Ceneration of that volume of process hazardous waste																		
2. 3. 4.	wasto Inventory. Soil Sampling & Analysis							†Pedinispones				-1-01-5-10-							
Revised	Dismantling and decontamination of pan wash tanks and appur- tenances.																	- Annua Charles (Charles Charles Charl	
00.00 00.00 00.00	Decontamination of storage area and waste handling areas									ones de la contracta									
ชัก 7.	Decontamination of Hankury									**************************************							mmercodfeb380999998888888	Control contro	
10	Decontamination of Electro- plating sump Decontamination of equipment and structures Completion of closure and certification nubmitted to Region V and Ohio EPA Louinission of certification (Co & PE)															The state of the s			

CLOSUME SCHEDILL

- <u>HOTE:</u> 1. Disposal of final waste inventory includes the hazardous wastes generated due to the cleanup process.
 - 2. This process continues throughout most of the closure schedule.

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TABLE 3 CLOSURE COST ESTIMATE

Waste Inventory Removal	<u>Drums</u> 450	Cost Per Drum non-	Labor @ \$ <mark>non-</mark> / HR	Materials	<u>Total</u> \$49,500
Clean-up Wastes	25	non-			\$ 1,500
Hazardous Waste Storage Area Clean-up			non-	\$5,300	\$14,863
Soil Sample Collection & Analysis			\$ non-	\$7,500	\$ 8,000
Sub-Total					\$73,863
non- Contingency					\$ 7,386
Total					\$81,249



November 17, 1992

0: WMD

RA RF LTR. ONLY CC: o Rimdan

> Environmental and Applied Earth Science Consultants

T. M. GATES, INC. 787 ROUND BOTTOM ROAD MILFORD, OHIO 45150 513-248-1025

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. Donald R. Schregardus, Director Ohio Environmental Protection Agency 1800 Water Mark Drive, Box 1049 Columbus, Ohio 43266-0149

Attn: Mr. Thomas Crepeau, Manager

Data Management for DSHWM

Mr. Valdas Adamkus, Regional Administrator

U.S. EPA, Region 5 HRP-8 77 West Jackson Boulevard Chicago, Illinois 60604

Attn: Harriet Croke, Chief of Ohio Permitting

Section, RCRA Permitting Branch

He:

Hazardous Waste Container Storage Area Closure

Columbus Coated Fabrics

Columbus, Ohio

U.S.EPA I.D. No. OHD 004 294 351 Ohio EPA I.D. No. 01-25-0145

Dear Mr. Crepeau and Ms. Croke:

Enclosed please find the certification document pertaining to the closure of the Hazardous Waste Container Storage Area (HWCSA) at the above referenced site.

If you have any questions or additional requirements, please let me know.

Sincerely,

Scott Fennell, P.E.

Senior Engineer/Hydrologist

SF/ccc

Enc.

CC:

Mr. Andrew Kubalak, Ohio EPA

Mr. Brent Kinnan, Borden, Inc. - Law Department HILLINGY TANDISA

Mr. Rick Springer, Borden, Inc. - Health & Environmento 301110

Mr. John Sykes, Borden, Inc. - Columbus Coated Fabrics

Mr. Grover Thomas, Borden, Inc. - Columbus Coated Fabrics NON

HECION A PROTECTION AGENCY EMALHOHAEHLWI

CERTIFICATION OF CLOSURE

Introduction

This certification provides documentation of closure according to the agency-approved "Revised Closure Plan for the Hazardous Waste Container Storage Area (HWCSA)" dated January 13, 1992, prepared for the Columbus Coated Fabrics (CCF) facility in Columbus, Ohio (OHD 004 294 351). The closure plan was approved by OEPA in a letter dated April 17, 1992. U.S.EPA approved the closure plan, with modifications, in a letter dated August 3, 1992. The U.S.EPA modifications did not substantively change the OEPA approved closure plan. Copies of all correspondence following OEPA approval are provided in Attachment A.

Decontamination

The HWCSA decontamination was accomplished during the week ending September 4, 1992. Prior to decontamination, the existing drummed waste inventory was removed and disposed of by CCF personnel utilizing standard procedures. T. M. Gates, Inc. personnel then accomplished decontamination in accordance with the procedures described in the approved plan. The steps were completed as follows:

- 1) Debris (i.e., grit, grime and dust) was scraped from the concrete floor using hand scrapers. The apparent origin of this debris was compacted dirt from forklift traffic. Solid material was collected into a 55 gallon drum, labelled, and sampled. The total volume of solid material was approximately one half (1/2) of a drum (i.e., 27 gallons).
- 2) Red Devil-brand "TSP/90" phosphate-free, powder detergent was spread over the floor.
- 3) Starting at one corner of the pad, the steam cleaner was used to remove dirt and solubilize any chemical residues

from the floor and lower portion of the walls. Dayton-brand phosphate degreaser (stock no. 5W135) was dispensed through the steam cleaner as a cleaning aid. Additionally, a stiff brush was utilized to scrub the condensed steam/detergent mixture into the floor.

- 4) Dirty wash water was removed from cleaned areas as it was generated using a squeegee and wet vacuum. Liquids from the wet vacuum were periodically decanted into open-head 55 gallon drums. Residual solids that settled to the bottom of the wet vacuum canister were then removed and transferred to the one (1) drum containing solid debris.
- 5) Following the steam cleaning, three (3) rinses of the floor were completed, again starting at one corner and progressing over the entire floor. The rinse water was applied with the steam cleaner, which was adjusted to deliver hot water. Rinse water was recovered and drummed as it was generated. A total of seven (7) 55-gallon drums of wash and rinse water were generated.

Decontamination Verification

After the HWCSA was decontaminated as described above, a final rinse was applied to the pad to facilitate collection of a sample for comparison to performance standards set forth in the approved closure plan. Collection of this sample was accomplished in the following manner:

- 1) Tap water was liberally applied to approximately 400 to 500 square feet of the HWCSA surface using a new garden hose.
- A squeegee was used to push water applied to the pad to a low area of the pad. (The surface of the concrete floor is not perfectly level but instead has subtle high and low areas that are not readily apparent to the naked eye.)

The sample was collected directly from the floor utilizing a pre-cleaned, stainless steel, flat edged scoop, and then transferred to pre-preserved sample containers. This sample was designated "Pad Rinse".

As noted above, tap water was applied to the pad for purposes of collecting the final rinse sample. Tap water was used instead of reagent water in order to allow contact with a large area of the pad. However, usage of tap water required preparation of a field blank to determine whether analytes were present in the "raw" water applied to the pad. Accordingly, a field blank was prepared by passing tap water through the garden hose referenced above and directly into prepreserved sample containers. This sample was actually prepared before applying the final rinse and collecting the "Pad Rinse" sample in the manner described above. This blank sample was designated "Field Blank".

Samples were immediately placed on ice and shipped to the laboratory by overnight courier. Laboratory Analytical reports are provided in Attachment B and an analysis summary is provided in Table 1. Central District OEPA representative Andrew Kubulak witnessed all sampling activities.

No organic constituents were detected and metal analytes were all below performance standards. Therefore, the decontamination has achieved the performance objectives and the HWCSA may be considered closed.

It should be noted that warfarin, a constituent of rat poison, was not quantified by the laboratory. Warfarin is not included in standard U.S.EPA Test Methods and an attempt to quantify it utilizing HPLC failed. A letter from the laboratory director describing their efforts is provided in Attachment C. Given the demonstrated degree of decontamination achieved (as evidenced by waste versus rinse samples), it is believed that residual warfarin could not reasonably be expected to remain on the pad.

COLUMBUS COATED FABRICS - CLOSURE CERTIFICATION TABLE 1 DECONTAMINATION VERIFICATION

CONSTITUENT	FIELD BLANK CONCENTRATION (mg/L)	PAD RINSE CONCENTRATION (mg/L)	PERFORMANCE STANDARD (mg/L)
Acetone	< 0.050	< 0.050	1.0
Benzene	< 0.005	< 0.005	0.075
Carbon Disulfide	< 0.005	< 0.005	1.0
Carbon Tetrachloride	< 0.005	< 0.005	0.075
Chlorobenzene	< 0.005	< 0.005	1.0
Cyclohexanone	< 0.010	< 0.010	1.0
Ethylbenzene	< 0.005	< 0.005	1.0
Ethyl Acetate	< 0.010	< 0.010	1.0
Ethyl Ether	< 0.010	< 0.010	1.0
2-Ethoxy Ethanol	< 1.000	< 1.000	1.0
N-Butyl Alcohol	< 1.000	< 1.000	1.0
Isobutanol	< 1.000	< 1.000	1.0
Methanol	< 1.000	< 1.000	1.0
MEK	< 0.050	< 0.050	1.0
MIBK	< 0.050	< 0.050	1.0
Methylene Chloride	< 0.005	< 0.005	1.0
Orthodichlorobenzene	< 0.010	< 0.010	1.0
Tetrachloroethene	< 0.005	< 0.005	0.075

COLUMBUS COATED FABRICS - CLOSURE CERTIFICATION TABLE 1 DECONTAMINATION VERIFICATION

CONSTITUENT	FIELD BLANK CONCENTRATION (mg/L)	PAD RINSE CONCENTRATION (mg/L)	PERFORMANCE STANDARD (mg/L)
Toluene	< 0.005	< 0.005	1.0
1,1,1-Trichloroethane	< 0.005	< 0.005	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.010	< 0.010	1.0
Trichlorofluoromethane	< 0.005	< 0.005	1.0
Trichloroethene	< 0.005	< 0.005	0.075
2-Nitropropane	< 0.010	< 0.010	1.0
Pyridine	< 0.200	< 0.200	1.0
Xylenes	< 0.005	< 0.005	1.0
Warfarin	Not Determined	Not Determined	1.0
Barium	0.014	0.170	1.0
Cadmium	< 0.005	0.020	0.15
Chromium	< 0.010	0.032	0.75
Hexavalent Chromium	< 0.010	< 0.010	1.0
Lead	< 0.005	0.046	0.75
Mercury	< 0.0002	< 0.0002	0.03
Hydrochloric Acid (pH)	7.6	7.6	5-9 S.U.
Cyanide (Total CN)	< 0.010	< 0.010	1.0

Waste Disposal

Samples were collected from both liquid and solid drummed waste in order to determine appropriate disposal. The liquid sample was taken from wash water (as opposed to rinse water) in order to provide a "worst case" characterization of liquid waste generated. Samples of liquid and solid drummed materials were designated "HWCSA Wastewater" and "HWCSA Laboratory analytical reports are Sweepings" respectively. provided in Attachment B.

Due to the presence of regulated substances in both liquid and solid wastes, all waste will be disposed of as hazardous wastes by CCF personnel utilizing standard procedures.

Certifications

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment to knowing violations.

W. Bailey Banton, Vice President

11-13-92 Date

I certify that closure was completed in accordance with the specifications in the approved closure plan, with the exception of warfarin analysis, as noted.

Scott Fennell, Professional Engineer

Registration No. E-55573

T. M. GATES, INC.

ATTACHMENT A

CORRESPONDENCE FOLLOWING CLOSURE PLAN APPROVAL



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

MAY 0 8 1992

REPLY TO THE ATTENTION OF:

Mr. Grover Thomas Environmental Manager Columbus Coated Fabrics 1280 North Grant Avenue P.O. Box 208 Columbus, Ohio 43201

RE: Closure Plan

Columbus Coated Fabrics Facility

Columbus, Ohio OHD 004 294 351

Dear Mr. Thomas:

Thank you for submitting a revised closure plan regarding the planned closure of the Hazardous Waste Container Storage Area (HWCSA) at the Columbus Coated Fabric (CCF) facility in Columbus, Ohio. The closure plan which was submitted and approved with modifications by the Ohio Environmental Protection Agency on April 17, 1992, contains minor variations from the closure plan that is contained within the Federal RCRA permit issued on September 27, 1984. Therefore, CCF must submit a modification request to reflect the changes in the new closure plan which was submitted January 13, 1992, from the closure plan in the Federal RCRA permit.

The differences between the Federal RCRA permit and the submitted closure plan are:

In Section 13.i, the final facility closure date is 2050. This date is the final closure date in the permit. This date must be modified to indicate the actual year of closure.

Section 13.iv (g) and (h), of the closure plan in the Federal RCRA permit contains specific off-site disposal and treatment facilities, and transporters. The specific facilities have been changed in the new Closure Plan.

CCF must submit a permit modification request to the United States Environmental Protection Agency in order to close the HWCSA pursuant to the permit. The request must contain the specific changes and the type of permit modification for each change. The permit modifications are listed in Title 40 Code of Federal Regulations (CFR) 42. However, some of these modifications may not be specifically listed, and therefore 40 CFR 270.42(d) should be applied.

In addition, in Table 3, the analytical method listed for the inorganic contaminants is SW-846 Test Method 1311. This is the Toxicity Characteristic Leaching Procedure (TCLP) analytical method. CCF also lists in Table 3, several organic constituents that also are come under the TCLP regulations, as

well as, being listed wastes. Therefore, the Land Disposal Regulation 40 CFR 268.9 is applicable, in addition to any analytical requirements the state regulations may require.

If you have any further questions you may call me at 312-886-7569.

Sincerely yours,

Stephen Bouchard

Enclosure

cc: Andrew Kubalak, OEPA-CO

Ed Crepeau, OEPA-CO Ed Kitchen, OEPA-CO

Brent E. Kinnan, Borden Inc.

BORDEN PACKAGING and INDUSTRIAL PRODUCTS DOMESTIC AND INTERNATIONAL DIVISION OF BORDEN, INC.



C. RICHARD SPRINGER
MANAGER—ENVIRONMENTAL
ENVIRONMENTAL AFFAIRS

June 22, 1992

Mr. Valdas Adamkus Regional Administrator U.S. EPA - Region 5 77 West Jackson Boulevard Chicago, IL 60604-3590

Attn.: HRP-8J

Re.: Part B Permit Modification

Columbus Coated Fabrics Facilities

Columbus, Ohio OHD 004 294 351

Dear Mr. Adamkus:

We are herein requesting a Class 1 modification of the Part B Permit for the above referenced facility. Specifically, we request that the Closure Plan (Revision October, 1990) included in the permit be modified by the closure plan (Revision January 13, 1992) included with this submission. It should be noted that in a letter dated April 17, 1992, the Ohio EPA has already approved the modified closure plan.

As identified in the U.S. EPA letter dated May 8, 1992, changes between the permit closure plan and the modified closure plan are described below. (Topic headings correspond to those in the permit closure plan.)

(i) General Information

The permit plan specifies a date of 2050 for hazardous waste container storage area and facility closure under the assumption that the unit would be used for permitted storage (i.e., >90 days) for the duration of facility operations. However, as previously stated, the hazardous waste container storage area will be closed in 1992 (pending agency approval), while waste generating operations are expected to continue.

Letter to Mr. V. Adamkus June 22, 1992 Page Two

(iv) Inventory Removal and Disposal or Decontamination of Equipment

The permit plan specifies numerous hazardous waste disposal/recycling facilities and transporters. The modified plan provides an updated list. These facilities are permitted by the appropriate hazardous waste agencies.

(v) Schedule for Closure

Both plans specify 180 days to complete closure. The modified plan specifies that the clock will start after approval of the Director of OEPA. This will be modified by letter to specify schedule start after receiving both U.S. EPA and OEPA approval.

A proposed letter modifying the OEPA approved closure plan is enclosed. If OEPA has no objections to the proposed modifications, hazardous waste container storage area closure will be initiated upon receipt of your favorable reply to this permit modification request.

If I can provide any additional information to aid in your review, please do not hesitate to contact me or Rick Spencer of T.M. Gates, Inc. at (513) 248-1025.

Sincerely,

C. R. Springer

CRS:ckb

cc: Mr. Andrew Kubalak, OEPA, CDO

Mr. Tom Crepeau, OEPA, CDO

Mr. Steve Roth, OEPA, CDO

Ms. Lisa Pierard, U.S. EPA, Region 5 Mr. Joel Morbito, U.S. EPA, Region 5 Mr. Steve Bouchard, U.S. EPA, Region 5

BORDEN PACKAGING and INDUSTRIAL PRODUCTS DOMESTIC AND INTERNATIONAL DIVISION OF BORDEN, INC.



C. RICHARD SPRINGER MANAGER—ENVIRONMENTAL ENVIRONMENTAL AFFAIRS

June 22, 1992

Donald Schregardus, Director
Ohio Environmental Protection Agency
P.O. Box 1049
1800 Water Mark Drive
Columbus, OH 43266-0149

Re.: Closure Plan
Columbus Coated Fabrics
OHD 004 294 351

Dear Mr. Schregardus:

We have received your approval letter of April 17, 1992, regarding the Revised Closure Plan for the Hazardous Waste Container Storage Area (HWCSA) submitted for the above mentioned facility. However, U.S. EPA Region 5 has indicated that we are required to modify the previously approved facility closure plan incorporated within the facility's Part-B permit before commending closure.

Additional requirements under consideration by U.S. EPA include:

- Modification of the approved facility closure date for the HWCSA from the year 2050 to the year 1992.
- 2. Modification of the approved list of hazardous waste disposal/recycling facilities and transporters contained in the Part B Permit to include the updated list contained in the Revised Closure Plan.

Additionally, the Revised Closure Plan specified 180 days to complete closure following approval by the OEPA. It is hereby requested that the 180 day closure period will commence as soon as we receive both Part B permit modification approval from U.S. EPA and your approval of the above additions.

Letter to Donald Schregardus June 22, 1992 Page Two

If you require additional information for your review, please do not hesitate to call me or Rick Spencer of T.M. Gates, Inc. (513) 248-1025.

Sincerely,

C. R. Syungin

c. R. Springer

CRS:ckb

Encl.

cc: Mr. Andrew Kubalak, OEPA, CDO

Mr. Tom Crepeau, OEPA, CDO

Mr. Steve Roth, OEPA, CDO

Ms. Lisa Pierard, U.S. EPA, Region 5

Mr. Joel Morbito, U.S. EPA, Region 5 Mr. Steve Bouchard, U.S. EPA, Region 5



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD L. CHICAGO, IL 60604-3590

Fan do

GROWER THOMAS

297-6079)

REPLY TO THE ATTENTION OF:

AUG 0 E92

HRP-8J

C. Richard Springer, Manager Environmental Affairs Borden Packaging and Industrial Products Division of Borden, Inc. 1050 Kingsmill Parkway Columbus, Ohio 43229-1143

RE: Class 1 Permit Modification Request Columbus Coated Fabrics Facility Columbus, Dhio OHD 004 294 351

Dear Mr. Springer:

The United States Environmental Protection Agency (U.S. EPA) has received your Class 1 permit modification request, dated June 22, 1992, for a modification to the closure plan contained in Attachment VI. of your Federal Resource Conservation and Recovery Act (RCRA) permit.

Your modification request is hereby approved. The modified pages of your closure plan are enclosed. Replace Section 13.iv(g) and (h), with Table 2 of the revised State of Ohio closure plan, and replace the Closure Schedule, Figure 12, page 107 with Figure 4 of the State of Ohio closure plan. The facility must comply with all appropriate permit modification requirements under Title 40 Code of Federal Regulations 270.42 for a Class 1 permit modification.

If you have questions, please contact Stephen Bouchard of my staff, at (312) 886-7569.

Sincerely,

Karl E. Bremer, Chief RCRA Permitting Branch

Enclosure

cc: Ed Lim, DEPA-CO (w/o Attachment)
Tom Crepeau, GEPA-CO (w/o Attachment)
Andrew Kubalak, OEPA-CO

Printed on Recycled Paper

AUG 24 '92 16:24 FROM H-E REGION B

100.3089

COLLMBUS COATED FABRICS - CLOSURE PLAN IABLE 2

PERMITTED HAZARDOUS WASTE TREATMENT/DISPOSAL/TRANSPORTATION SERVICES

LIQUID FUFILS BLENDING AND/OR PECYCLING

Avganic Industries 114 N. Main St. Cottage Grove, WI 53527 EPA ID#: WID 000 808 824 Safety-Kleen Corp. 633 E. 138th St Dolton, IL 60410 EPA ID#: ILD 980 613 913

Chemical Solvents, Inc. 1010 Denison Ave. Cleveland, OH 44109 EPA ID# OHD 980 897 656 Holnsm, inc./Safety-Kleen Corp. Rts. 2, Box 418, Highway 453 South Holly Hill, SC 29059 EPA ID#: SCD 003 358 891

North East Chemical Corp. 230 Monroe Ave. Cleveland, OH 44113 EPA ID#: OHD 980 881 571 Systech Environmental Corp. County Road 178 Paulding, OH 45879 EPA ID#: OHD 005 048 947

Rhone-Poulenc Basic Chem. Co. 2000 Michigan Hammond, IN: 46320 EPA ID#: IND 001 859 032

LIQUID & SOLIDS TREATMENT & DISPOSAL

CHEMMET Services 18550 Allen Rd. Wyzndotte, MI 48192 EPA ID#: MID 098 963 194 Petro-Chem Processing 515 Lycaste Detroit, MI 48214 EPA ID#: MID 980 615 298

Cyanokem 1238 Scheefer Highway Detroit, MI 48227 EPA ID#: MID 098 011 992 Rineco Chemical Industries 1007 Vulcan Road-Haskell Benton, AR 72015 EPA ID# ARD 069 748 192

LIQUID TREATMENT. DISPOSAL & FLEL BLENDING

Research Oil 2655 Transport Rd. Claveland, OH 44115 EPA ID#: OHD 004 178 812 Usher Oil Company 9000 Roselawn Dr. Detroit, MI 48204 EPA ID# MID 016 985 814

LIQUID TREATMENT & DISPOSAL

Tricil Environmental Services 4350 Edgwin Dr. Hillard, OH 43028 EPA ID# OHD 081 290 611

BUG 24 '92 16:26 FROM H-E REGION B

TABLE 2 (cont)

TRANSPORATION

Chem Freight, Inc. 6800 Bessemer Ave. Cleveland, OH 44127 EPA ID#: OHD 986 966 190

Chemical Solvents Inc. 3751 Jennings Rd. Cleveland, OH 44109 EPA ID#: OHD 052 937 885

Cousins Waste Control
1801 Matzinger Rd.
Toledo, Ohio 43612
EPA ID#: OHD 068 081 595

Mr. Frank, Inc. 4747 Lincoln Mail Dr., Suite 603 Matteson, IL 80443 EPA ID#: ILD 984 775 049

Indianhead Track Line, Inc. 1947 W. County Rd. C Roseville, MN 55113 EPA ID#: MND 008 963 318 Metropolitan Environmental Corp. 310 W. Market Selina, OH 45822 EPA ID# INT 190 010 397

P&F Trucking 400 Marne Dr., N.E. Newark, OH 43055 EPA ID#: OHD 980 613 368

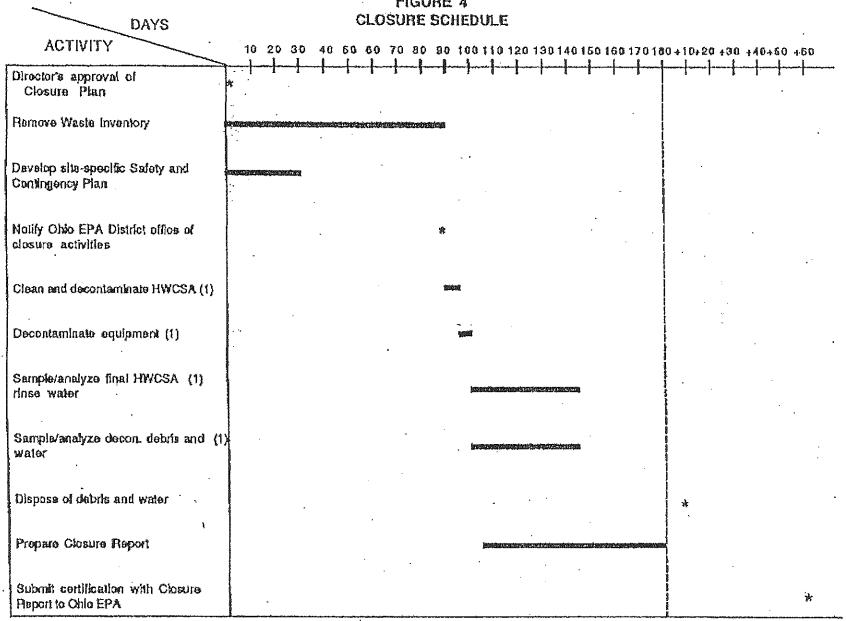
Schneider Tank Lines 3061 S. Ridge Rd. Green Bay, WI 54306 EPA ID#: WID 980 904 742

Tricil Environmental Services 4350 Edgwin Dr. Hillard, OH 43028 EPA ID#: OHD 081 290 \$11

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COLUMBUS COATED FABRICS-CLOSURE PLAN FIGURE 4



NOTE: (1) independent engineer or his representative will be precent during these potivities

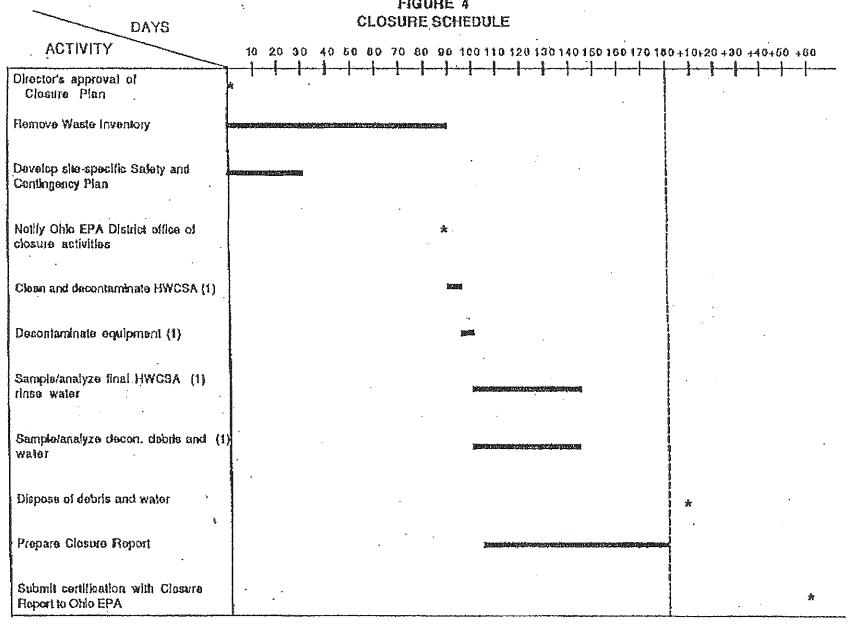
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FROM

16:27

COLUMBUS COATED FABRICS-CLOSURE PLAN FIGURE 4 CLOSURE SCHEDULE



NOTE: (1) independent anglinear or his representative will be present during these exhibites



State of Ohio Environmental Protection Agency

P.O. Box 1049, 1800 WaterMark Dr. Columbus, Chio 43266-0149 (614) 644-3020 FAX (614) 644-2329

George V. Volnovich Governor

RE: CLOSURE PLAN EXTENSION COLUMBUS COATED FABRICS OHD004294351

August 13, 1992

Mr. C.R. Springer
Manager Environmental
Environmental Affairs
Borden Packaging and Industrial Products
1050 Kingsmill Parkway
Columbus, Ohio 43229-1143

CERTIFIED MAIL

מיד מיד

Dear Mr. Springer:

On July 1, 1992, Columbus Coated Fabrics (CCF) submitted a request for an extension to the closure period specified in the closure plan approved on April 17, 1992 which expires on October 14, 1992. The extension request was submitted pursuant to the OAC Rule 3745-66-13(B), as closure of the container storage area will require longer than the 180 day period specified in OAC Rule 3745-66-13.

CCF has requested that U.S. EPA modify the previously approved closure plan, incorporated within the federal Part B Permit, before commencing closure. CCF has requested that Ohio EPA extend the closure period to 180 days following both the Part B Permit Modification approval from U.S. EPA, and Ohio EPA approval of the two changes to the approved closure plan which are described in your June 22, 1992 letter.

An extension of time allowed for closure is hereby granted for 180 days from the date that U.S. EPA approves the Part B permit modifications.

Please note that the two modifications to the closure plan which you mention in your letter of June 22, 1992 have already been incorporated into the plan which Ohio EPA approved on April 17, 1992, therefore Ohio EPA does not need to respond further to the modification request.

Please be advised that approval of this closure extension request does not release CCF from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Cavin Date 8-13-95

Mr. C.R. Springer
Manager Environmental
Environmental Affairs
Borden Packaging and Industrial Products
Page 2

When closure is completed, the Ohio Administrative Code Rule 3745-66-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and a registered professional engineer that the facility has been closed in accordance with the approved closure plan. The owner or operator certification shall follow the format specified in OAC 3745-50-42(D). These certifications should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attention: Mr. Tom Crepeau, Data Management Section, P.O. Box 1049, Columbus, Ohio 43266-0149.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the ground upon which the appeal is based. If must be filed with the Environmental Board of Review within thirty (30) days from the receipt of this letter. A copy of the appeal must be served to the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Board. An appeal must be filed at the following address:

Environmental Board of Review 236 East Town Street Room 300 Columbus, Ohio 43215

Any questions regarding this matter should be directed to Andrew D. Kubalak at Ohio EPA Central District Office at (614) 771-7505.

Sincerely

. Donald R. Schregardus

Director

DRS/ADK/sc

CC: Markersethomas, Columbus Ccated Fabrics
Tom Crepeau, Ohio EPA, CO, DHWM
Section Chief, Ohio Permit Section, U.S. EPA, Region V
Randy Meyer, Ohio EPA, CO, DSHWM
Andrew D. Kubalak, Ohio EPA, CDO, DHWM

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

By: Mary Caves Date 8-13-92

36 13 V

LO DIRECTOR'S JELF

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ATTACHMENT B

LABORATORY ANALYTICAL REPORTS

CHAIN OF CUSTODY RECORD

T.M. GATES, INC. CLIENT: BORREN, INC SAMPLEB& (SIGNATURE) Den KI CCF LOCATION: 91-01-011 PROJECT NO. NO. OF REQUIRED ANALYSIS **MATRIX** SAMPLE NO./ **BOTTLES** DATE TIME DESCRIPTION WATER SOIL 9/2/92 3:10 // Rinse Field Blank 9/2/92 2:45 11 TRIP Blank Brepapelbylak Palis (1 ra. 250 rul playtic) Hexandleng chronium sauple 24 hour holding TALLY & COOLER TEMPERATURE COOLER TEMPERATURE REC'D @ REC'D @ 7.6°C RELINQUISHED BY: (SIGNATURE) TIME DATE RELINQUISHED BY: (SIGNATURE) RELINQUISHED BY: (SIGNATURE) RELINQUISHED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) RECEIVED BY MOBILE LABORATORY DATE TIME FOR FIELD ANALYSIS: DISPATCHED BY: 'SIGNATURE) RECEIVED FOR LABORA-TIME TIME DATE 1/30/52 TORY BY: (METHOD OF SHIPMENT: T.M. GATES, INC DISTRIBUTIÓN: 787 ROUND BOTTOM ROAD PLEASE RETURN ORIGINAL ORIG. - ACCOMPANY SHIPMENT MILFORD, OHIO 45150 WITH ANALYTICAL RESULTS COPY - FIELD/OFFICEE FILES 513-248-1025

CHAIN OF CUSTODY RECORD

T.M. GATES, INC. CLIENT: BORDEN, INC. SAMPLERS, (SIGNATURE) CCF Im Ha LOCATION: 91-01-011 PROJECT NO. NO. OF SAMPLE NO/ **MATRIX** REQUIRED ANALYSIS **BOTTLES** DATE TIME DESCRIPTION WATER SOIL HWCSA Washwater 5/2/91 1:57 11 - See Affached HWUSA 2 25 Palis tolste Note: tox hexavelen 250 ml plastic) 8240/8015 companio COOLER TEMPERATURE RELINQUISHED BY: (SIGNATURE) RELINQUISHED BY: (SIGNATURE) TIME DATE RELINQUISHED BY: (SIGNATURE) RELINQUISHED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) RECEIVED BY MOBILE LABORATORY DATE TIME FOR FIELD ANALYSIS: DISPATCHED EX: 'SIGNATURE RÉCEIVER FOR LABORA-DATE TIME DATE TIME TORY BY: 7:00 AL METHOD OF SHIPMENT: T.M. GATES, INC DISTRIBUTIÓN: PLEASE RETURN ORIGINAL 787 ROUND BOTTOM ROAD ORIG. - ACCOMPANY SHIPMENT WITH ANALYTICAL RESULTS MILFORD, OHIO 45150 COPY - FIELD/OFFICEE FILES 513-248-1025



LOG NO: M2-13025

Received: 04 SEP 92

Dr. Todd M. Gates T. M. Gates, Inc. 787 Round Bottom Road Milford, OH 45150

Project: Borden-CCF/91-01-011

Sampled By: Client

REPORT OF RESULTS

	SAMPLE DESCRIPTION , LIQUID SAMPLES			
	Pad Rinse Field Blank		09-02-92 09-02-92	
PARAMETER			13025-2	
	y GC/MS (8240)			
	Chloride, ug/1		<5.0	
Acetone, u		. <50		
-	ulfide, ug/1	<5.0		
	(MEK), ug/l	<50		
	hloroethane, ug/1		<5.0	
Carbon Tetrachloride, ug/l			<5.0	
Trichloroethene, ug/1		<5.0		
Benzene, u	· •	<5.0		
	-pentanone , ug/1	<50	· Control of the cont	
•	oethene, ug/1	<5.0	<5.0	
Toluene, u			<5.0	
Chlorobenz		<5.0	<5.0	
Ethylbenze	·	<5.0	<5.0	
Xylenes, u	-	<5.0	<5.0	
Cyclohexan	•	<10	<10	
Ethyl acetate, ug/1		<10		
Ethyl ether, ug/l		<10		
Ethoxyetha		<1000	<1000	
	nloro-1,2,2-trifluoroethane, ug/1	<10		
Trichlorofluoromethane, ug/l		<5.0	<5.0	
2-Nitropro		<10	<10	
•	Volatiles (8015)			
Methanol,		<1000	<1000	
Isobutanol			<1000	
N-butyl Ale		<1000		



LOG NO: M2-13025

Received: 04 SEP 92

Dr. Todd M. Gates T. M. Gates, Inc. 787 Round Bottom Road Milford, OH 45150

Project: Borden-CCF/91-01-011

Sampled By: Client

REPORT OF RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES		DATE SAMPLE	D
13025-1 13025-2	Pad Rinse Field Blank		09-02-92 09-02-92	
PARAMETER		13025-1	13025-2	
1,2-Dichlo Pyridine, Warfarin, u pH , units Total cyani Barium, mg/ Cadmium, mg Chromium, m	g/1 de (9010), mg/1 1 /1 g/1 Chromium, mg/1 421), mg/1	<10 <200 ND* 7.6 <0.010 0.17 0.020 0.032 <0.010 0.046 <0.00020	0.014 <0.0050 <0.010 <0.010 <0.0050	

NOTE: 'ND*' denotes 'Not Determined'. Warfarin could not be analyzed by either HPLC or as a GC/MS semivolatile compound.

LOG NO: M2-13025

Received: 04 SEP 92

Dr. Todd M. Gates T. M. Gates, Inc. 787 Round Bottom Road Milford, OH 45150

Project: Borden-CCF/91-01-011

Sampled By: Client

REPORT OF RESULTS

Page 3

LOG NO SAMPLE DESCRIPTION , LIQUID SAMPLES		DATE SAMPLED	
13025-3	Trip Blank		09-02-92
PARAMETER		13025-3	
	by GC/MS (8240)		
	Chloride, ug/1	<5.0	
Acetone, u	<u> </u>	<50	
	ulfide, ug/l	<5.0	
	(MEK), ug/1	<50	
	hloroethane, ug/1	<5.0	
	rachloride, ug/1	<5.0	
Trichloroe	thene, ug/1	<5.0	
Benzene, u	g/1	<5.0	
4-Methyl-2-pentanone , ug/1		<50	
Tetrachloroethene, ug/l		<5.0	
Toluene, ug/1		<5.0	
Chlorobenzene, ug/l		<5.0	
Ethylbenzene, ug/1		<5.0	
Xylenes, u		<5.0	
Cyclohexan		<10	
Ethyl acet		<10	
Ethyl ethe	•	<10	
Ethoxyetha		<1000	
	hloro-1,2,2-trifluoroethane, ug/1	<10	
	luoromethane, ug/l	<5.0	
_	pane, ug/1	<10	
_	Volatiles (8015)	-1000	
Methanol,		<1000	
Isobutanol		<1000	
N-butyl Alcohol, ug/l		<1000	

REFERENCE: EPA SW-846 3rd Edition, 1986

Pesse I. Smith



LOG NO: M2-13024

Received: 03 SEP 92

Dr. Todd M. Gates T. M. Gates, Inc. 787 Round Bottom Road Milford, OH 45150

Project: Borden-CCF/91-01-011

Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES		DATE SAMPLED
13024-1	HWCSA Wastewater		09-02-92
ממשמות מיו		13024-1	
	by GC/MS (8240)		
	e Chloride, ug/l	<5.0	
Acetone,	ug/1	<50	
Carbon Di	isulfide, ug/l	<5.0	
2-Butanor	ne (MEK), ug/1	<50	
1,1,1-Tri	ichloroethane, ug/l	<5.0	
Carbon Te	etrachloride, ug/l	<5.0	
Trichlor	oethene, ug/l	<5.0	
Benzene, ug/1		8.2	
4-Methyl-2-pentanone , ug/1		<50	
Tetrachlo	proethene, ug/1	<5.0	
Toluene,	ug/1	5.0	
Chlorober	nzene, ug/l	<5.0	
Ethylbenz	zene, ug/1	<5.0	
Xylenes,	ug/1	<5.0	
Cyclohexa	anone, ug/1	<10	
Ethyl ace	etate, ug/l	<10	
Ethyl eth	• •	<10	
•	nanol, ug/l	<1000	
	ichloro-1,2,2-trifluoroethane, ug/1	<10	
Trichlord	ofluoromethane, ug/l	<5.0	
-	ropane, ug/1	<10	
~	en Volatiles (8015)		
Methanol,		<1000	
Isobutano	• •	<1000	
N-butyl A	Alcohol, ug/1	<1000	



LOG NO: M2-13024

Received: 03 SEP 92

Dr. Todd M. Gates T. M. Gates, Inc. 787 Round Bottom Road Milford, OH 45150

Project: Borden-CCF/91-01-011

Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES		DATE SAMPLED
13024-1	HWCSA Wastewater		09-02-92
PARAMETER		13024-1	
1,2-Dichlo Pyridine, Warfarin pH , units Total cyani Barium, mg/ Cadmium, mg Chromium, m	de (9010), mg/1 1 g/1 ng/1 Chromium, mg/1 7421), mg/1	<1000 2.3 ND* 10.9 0.48 4.9 3.0 2.3 0.74 8.5 0.0095	
nercury, mg	31 +	3,00,0	



LOG NO: M2-13024

Received: 03 SEP 92

Dr. Todd M. Gates T. M. Gates, Inc. 787 Round Bottom Road Milford, OH 45150

Project: Borden-CCF/91-01-011

Sampled By: Client

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , SOLID OR SEMISOLI	SAMPLES	DATE SAMPLED
13024-2	HWCSA Sweepings		09-02-92
PARAMETER		13024-2	
	by GC/MS (8240)		
	Chloride, ug/kg dw	<130	
Acetone,		<1300	
	sulfide, ug/kg dw	<130	
2-Butanon	e (MEK), ug/kg dw	<1300	
1,1,1-Tri	chloroethane, ug/kg dw	<130	
	trachloride, ug/kg dw	<130	
Trichloro	ethene, ug/kg dw	<130	
Benzene,	ug/kg dw	<130	
4-Methyl-:	2-pentanone , ug/kg dw	<1300	
Tetrachlo:	roethene, ug/kg dw	<130	
Toluene,	ug/kg dw	<130	
Chloroben:	zene, ug/kg dw	<130	
Ethylbenz	ene, ug/kg dw	<130	
Xylenes, 1	ug/kg dw	760	
Cyclohexa	none, ug/kg dw	<260	
Ethyl ace	tate, ug/kg dw	<260	
Ethyl ethe	er, ug/kg dw	<260	
	anol, ug/kg dw	<2600	
1,1,2-Tri	chloro-1,2,2-trifluoroethane, ug/kg dw	<260	
Trichloro	fluoromethane, ug/kg dw	<130	
2-Nitropro	opane, ug/kg dw	<260	
Non-haloger	n Volatiles (8015)		
Methanol,		<1500	
	l, ug/kg dw	<1500	
N-butyl A	lcohol, ug/kg dw	<1500	

LOG NO: M2-13024

Received: 03 SEP 92

Dr. Todd M. Gates T. M. Gates, Inc. 787 Round Bottom Road Milford, OH 45150

Project: Borden-CCF/91-01-011

Sampled By: Client

REPORT OF RESULTS

Page 4

LOG NO	SAMPLE DESCRIPTION	, SOLID OR	SEMISOLID	SAMPLES	DATE SAMPLED
13024-2	HWCSA Sweepings				09-02-92
PARAMETER				13024-2	Mar and Mar and part of the contract of the co
1,2-Dichlo Pyridine, Warfarin, u pH , units Total cyani	.g/kg dw .de (9010), mg/kg dw .Chromium, mg/kg dw .P), mg/1 .CLP), mg/1 .CLP), mg/1 .TLP), mg/1 .TLP), mg/1			<37000 <37000 ND* 8.1 11 <0.50 <1.0 0.80 <0.20 <0.20 <0.010 78	

Reported TCLP results have not been corrected for analytical bias.

NOTE: 'ND*' denotes 'Not Determined'. Analyte could not be analyzed by either HPLC or as a GC/MS semivolatile compound.

LOG NO: M2-13024

Received: 03 SEP 92

Dr. Todd M. Gates T. M. Gates, Inc. 787 Round Bottom Road Milford, OH 45150

Project: Borden-CCF/91-01-011

Sampled By: Client

REPORT OF RESULTS

Page 5

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES		DATE SAMPLED
13024-3	Trip Blank		09-02-92
PARAMETER		13024-3	a de la companya de
	y GC/MS (8240)		
Methylene	Chloride, ug/l	<5.0	
Acetone, u	g/1	<50	
	ulfide, ug/l	<5.0	
2-Butanone	(MEK), ug/1	<50	
1,1,1-Tric	hloroethane, ug/l	<5.0	
Carbon Tet:	rachloride, ug/l	<5.0	
	thene, ug/l	<5.0	
Benzene, ug/1		<5.0	
4-Methyl-2-pentanone , ug/l		<50	
Tetrachloroethene, ug/l		<5.0	
Toluene, ug/1		<5.0	
Chlorobenzene, ug/1		<5.0	
Ethylbenzene, ug/l		<5.0	
Xylenes, ug/l		<5.0	
Cyclohexand	• •	<10	
Ethyl aceta		<10	
Ethyl ether		<10	
	nol (TCLP), ug/l	<1000	
	nloro-1,2,2-trifluoroethane, ug/l	<10	
	luoromethane, ug/1	<5.0	
2-Nitroprop		<10	
	Volatiles (8015)		
Methanol, u	•	<1000	
Isobutanol,	3	<1000	
N-butyl Alc	cohol, ug/l	<1000	

REFERENCE: EPA SW-846 3rd Edition, 1986

esse L. Smith

Laboratory locations in Savannah, GA • Tallahassee, FL • Mobile, AL • Deerfield Beach, FL • Tampa, FL

ATTACHMENT C

LETTER FROM LABORATORY DIRECTOR

October 8, 1992

Dr. Todd M. Gates T.M. Gates, Inc. 787 Round Bottom Road Milford, Ohio 45150

RE: Columbus Coated Fabrics Project No. 91-01-011 Warfarin analysis SL Log No. M213024, M213025

Dear Todd:

Savannah Laboratories and Environmental Services, Inc. received three water samples and one solid sweepings sample, and a trip blank for analysis of various compounds including warfarin. SL Log No. M213024, M213025 were assigned to these projects which were received on September 3 and 4, 1992.

This letter is written to help explain the difficulties encountered performing warfarin analysis on the Columbus Coated Fabrics project using High Performance Liquid Chromatograph (HPLC) technique.

A warfarin Method Detection Limit (MDL) study was initiated as soon as we were notified that samples were to be analyzed for warfarin. Numerous problems were encountered which remain unresolved despite several attempts to perform the analyses. Methylene chloride was chosen as the extraction solvent for both water and soil. The methylene chloride extracts were exchanged to acetonitrile prior to injection into the HPLC system. During analysis of the MDL study extracts, two to four chromatographic peaks were observed for all sample. There was no consistent pattern to indicate which peak was warfarin as opposed to breakdown products.

At this point crystallization was observed in the stock standards, prepared in both methanol and acetonitrile indicating a solubility problem. Methanol and acetonitrile are the only options for standard solvents, as they are compatible with the HPLC mobile phase. Warfarin is soluble in acetone, however, acetone is imcompatible with most HPLC columns and cannot be included in the mobile phase or injected into the system without undesirable effects. It appeared that standard instability occurred even though all stock and intermediate standards were protected from light and stored in the refrigerator.

A warfarin standard prepared in methylene chloride was injected into a Gas Chromatograph/Mass Spectrometer (GC/MS), however only decomposition breakdown peaks were found. No consistent reproducible peak for warfarin could be found using this technique. Warfarin is a non-volatile, high molecular weight organic compound (MW~308) which breaks down to different fragments upon heating. The GC/MS technique relies on the compound being thermally stable which vaporizes upon heating since separation and detection occurs in the gaseous phase.

Dr. Todd M. Gates October 8, 1992 Page Two

In summary, the HPLC analytical technique is the most promising method for analyzing samples for warfarin. However, we could not develop a method using standard columns and protocols used for other pesticide compounds at this time. The GC/MS semivolatile technique was tried, but did not work for warfarin. These are the only common laboratory methods available at Savannah Laboratories to measure warfarin and they did not work.

If you should have any questions or need further clarification of this response, please do not hesitate to call.

Best Regards,

esse L. Smith

Laboratory Director

JLS:1p

	*2. Total liabilities [if any portion of the closure or post-closure cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4]
	*3. Tangible met worth
	*4. Net worth
	*5. Current assets
	*6. Current liabilities
	7. Net working capital [line 5 minus line 6]
	*8. The sum of net income plus depreciation, depletion, and amortization
	*9. Total assets in U.S. (required only if less than 90% of firm's assets are located
	in the U.S.)
	Yes No
	10. Is line 3 at least \$10 million?
	11. Is line 3 at least 6 times line 1?
	12. Is line 7 at least 6 times line 1?
	*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14.
	14. Is line 9 at least 6 times line 1?
	15. Is line 2 divided by line 4 less than 2.07
	16. Is line 8 divided by line 2 greater than 0.1?
	17. Is line 5 divided by line 6 greater than 1.5?
	Alternative II

	1. Sum of current closure and post-closure cost estimates [total of all cost estimates shown in the four paragraphs above] \$
	Yes No
	7. Is line 5 at least \$10 million?
	8. Is line 5 at least 6 times line 1?
	*9. Are at least 90% of firm's assets located in the U.S.? If not, complete line 10.
	10. Is line 6 at least 6 times line 1?
	I hereby certify that the wording of this letter is identical to the wording specified in paragraph (F) of rule 3745-55-51 of the Administrative Code as such
	regulations were constituted on the date shown immediately below.
	(Signature)
	[Name]
	[Title]
	(Date)*
(G)	A letter from the chief financial officer, as specified in paragraph (F) of rules 3745-55-47 or 3745-66-47 of the Administrative Code, must be worded as follows.
	except that instructions in brackets are to be replaced with the relevant information
	and the brackets deleted:

"Letter from chief financial officer (to demonstrate liability coverage or to demonstrate both liability coverage and assurance of closure or post-closure care).

[Address to Director, Chio Environmental Protection Agency.]

[Fill out the following paragraphs regarding facilities and 'isbility coverage. If there are no facilities that belong in a particular paragraph, write "none" in the space indicated. For each facility, include its U.S. EPA identification number, Onio permit number, name, and address.)

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in rules 3745-55-40 to 3745-55-51 and 3745-66-40 to 3745-66-48 of the Administrative Code:

[If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following five paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a particular paragraph, write "none" in the space indicated. For each facility, include its U.S. EPA identification number, name, address, Chio permit number and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.]

- 1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in rules 3745-55-40 to 3745-55-51 and 3745-66-40 to 3745-56-48 of the Administrative Code. The current closure and/or post-closure cost estimate covered by the test are shown for each facility:
- 2. The firm identified above guarantees, through the guarantee specified in rules 3745-55-40 to 3745-55-51 and 3745-66-40 to 3745-66-48 of the Administrative Code, the closure and post-closure care or liability coverage of the following facilities comed or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility:
- 3. The firm identified above is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in rules 3745-55-40 to 3745-55-51 and 3745-66-40 to 3745-66-48 of the Administrative Code. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility:

- 4. The firm identified above came or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated to the director through the financial test or any other financial assurance mechanisms specified in rules 3745-55-40 to 3745-55-51 and 3745-66-40 to 3745-66-48 of the Administrative Code. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:
- 5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under Chapter 3745-34 of the Administrative Code. The current closure cost estimates as required by Chapters 3745-34, 3745-55 and 3745-66 of the Administrative Code are shown for each facility:

This firm [insert 'is required' or 'is not required'] to file a Form 10K with the securities and exchange commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in Part A if you are using the financial test to demonstrate coverage only for the liability requirements.]

Part A. Liability Coverage for Accidental Occurrences

[Fill in Alternative I if the criteria of paragraph (F)(1)(a) of rule 3745-55-47 or rule 3745-66-47 of the Administrative Code are used. Fill in Alternative II if the criteria of paragraph (F)(1)(b) of rule 3445-55-47 or rule 3745-66-47 of the Administrative Code are used.

Alternative I

ı.	Amount of annual aggregate liability coverage to be demonstrated \$	

*2 .	Current assets \$	
₽ 3.	Current liabilities \$	
4.	Net working capital (line 2 minus line 3) \$	٠
-J.	langible net worth S	
≙ 6.	If less than 90% of assets are located in the U.S., given total U.S. assets	8
• • • •	***************************************	

Yes No

- 7. Is line 5 at least \$10 million?
- 8. Is line 4 at least 6 times line 1?
- 9. Is line 5 at least 6 times line 1?
- *10. Are at least 90% of assets located in the U.S.? If not, complete line 11. 11. Is line 6 at least 6 times line 1?

Alternative II

Wright Table
1. Amount of arrual aggregate liability coverage to be demonstrated \$
2. Current bond rating of most recent issuance and name of rating service \$
3. Date of issuance of bond
Yes No
7. Is line 5 at least \$10 million? 8. Is line 5 at least 6 times line 1? *9. Are at least 90% of assets located in the U.S.? If not, complete line 10. 10. Is line 6 at least 6 times line 1?
[Fill in Part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or post-closure care.]
Part B. Closure or Post-Closure Care and Liability Coverage
[Fill in Alternative I if the criteria of paragraph (F)(1)(a) of rule 3745-55-43 or rule 3745-55-45 and paragraph (F)(1)(a) of rule 3745-55-47 of the Administrative Code are used or if the criteria in paragraph (E)(1)(a) of rule 3745-66-43 or 3745-66-45 and paragraph (F)(1)(a) of rule 3745-66-47 of the Administrative Code are used. Fill in Alternative II if the criteria of paragraph (F)(1)(b) of rule 3745-55-43 or 3745-55-45 and paragraph (F)(1)(b) of rule 3745-55-47 of the Administrative Code are used or if the criteria of paragraph (E)(1)(b) of rule 3745-66-43 or 3745-66-45 and paragraph (F)(1)(b) of rule 3745-66-47 of the Administrative Code are used.]
Alternative I
1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above) \$
3. Sum of lines 1 and 2 \$
*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) \$
12. Is line 5 at least \$10 million? 13. Is line 5 at least 6 times line 3? 14. Is line 9 at least 6 times line 3? *15. Are at least 90% of assets located in the U.S.? If not, complete line 16. 16. Is line 11 at least 6 times line 3? 17. Is line 4 divided by line 6 less than 2.0? 18. Is line 10 divided by line 4 greater than 0.1? 19. Is line 7 divided by line 8 greater than 1.5?

Alternative II

1. Sam of current closure and post-closure	cost est	imtes (total	. ത് ചി ത	st
estimates listed above \$	erage to	be descripting	ited \$	
3. Sam of lines 1 and 2 \$	nce and s	was of ratio	g service :	\$
5. Date of issuance of bond		•		
*7. Tangible net worth (if any portion of t is included in "total liabilities" on your f	inancial	e or post-cl statements y	osure cost	estimate: that
portion to this line) \$* *8. Total assets in the U.S. (required only in the U.S.) \$				
	Yes	No		•

- 9. Is line 7 at least \$10 million?
- 10. Is line 7 at least 6 times line 3?
- *11. Are at least 90% of assets located in the U.S.? If not, complete line 12.

12. Is line 8 at least 6 times line 3?

I hereby certify that the wording of this letter is identical to the wording specified in paragraph (G) of rule 3745-55-51 of the Administrative Code as such regulations were constituted on the date shown immediately below.

İ	(Signatu	ij	E	1	!					۰		٠							9
I	(Name).																		
	[Title]		•			•	•	٠	•		٠			•		٠	۰		
I	[Date]	٠									8		•						

(H) (1) A corporate guarantee, as specified in paragraph (F) of rule 3745-55-43 or 3745-55-45 of the Administrative Code or paragraph (E) of rule 3745-66-43 or 3745-66-45 of the Administrative Code, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

*Guarantee for Closure or Post-Closure Care

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the State of [insert name of State], herein referred to as guarantor, to the Chio Environmental Protection Agency, obligee on behalf of our subsidiary [owner or operator] of [business address].

Recitals

- 1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in paragraph (F) of rules 3745-55-43 and 3745-55-45 of the Administrative Code or paragraph (E) of rules 3745-66-43 and 3745-66-45 of the Administrative Code.
- 2. [Owner or operator] cans or operates the following hazardous waste management facility(ies) covered by this guarantee: [list for each facility: EPA identification number, name, Chio permit number and address. Indicate for each whether guarantee is for closure, post-closure care, or both.]
- 3. "Closure plans" and "post-closure plans" as used below refer to the plans smintained as required by Chapters 3745-55 and 3745-66 of the Administrative Code for the closure and post-closure care of facilities as identified above.

- 4. For value received from [camer or operator], guarantor guarantees to EPA that in the event that [camer or operator] fails to perform [insert "closure," post-closure care" or "closure and post-closure care"] of the above facility(ies) in accordance with the closure or post-closure plans and other permit or interim standards requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Chapters [camer or operator] in the Administrative Code, as applicable, in the name of estimates as specified in Chapters 3745-55 and 3745-66 of the Administrative Code.
- 5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within ninety days, by certified mail, notice to the Director, Ohio EPA and to [Owner or operator] that he intends to provide alternate financial assurance as specified in Chapters 3745-55 and 3745-66 of Within one hundred twenty days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [Owner or operator] has done so.
- 6. The guarantor agrees to notify the Director by certified mail, of a voluntary or involuntary proceeding under "Title XI (Bankruptcy)", U.S. Code, naming guarantor as debtor, within ten days after commencement of the
- 7. Guarantor agrees that within thirty days after being notified by the Director of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure care, he shall establish alternate financial assurance as specified in Chapters 3745-55 and 3745-66 of the Administrative Code, as applicable, in the name of [Gamer or operator] unless [Gamer or operator] has:
- 8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or post-closure plan, amendment or modification of the permit, the extension or reduction of the time of performance of closure or post-closure, or any other modification or alteration of an obligation of the owner or operator pursuant to Chapters 3745-55 and 3745-66 of the Administrative Code.
- 9. Guarantor agrees to remain bound under this guarantee for so long as [Guarer or operator] must comply with the applicable financial assurance requirements of Chapters 3745-55 and 3745-66 of the Administrative Code for the above listed facilities, except that guarantor may cancel this guarantee by sending notice by certified smil to the Director and to [Guarer and operator], such cancellation to become effective no earlier than one hundred twenty days after receipt of such notice by both Chio EPA and [Guarer or operator], as evidenced by the return receipts.
- 10. Quarantor agrees that if [comer or operator] fails to provide alternate financial assurance as specified in Chapters 3745-55 and 3745-66 of the Administrative Code, as applicable, and obtain written approval of such assurance from the Director within ninety days after a notice of cancellation by the guarantor is received by the Director from guarantor, guarantor shall provide such alternate financial assurance in the name of [camer or operator].

P.O. Box 1049, 1800 WaterMark Dr. Columbus, Ohio 43266-0149 (614) 644-3020 FAX (614) 644-2329

REGEIVED

> Donald R. Schregardus Director

May 21, 1992

Re: Columbus Coated Fabrics
OHD004461711
Financial Assurance
OHD 004194351

Mr. Richard Springer, Director Environmental Affairs Borden, Inc. 180 East Broad Street Columbus, Ohio 43215

Dear Mr. Springer:

On May 19, 1992, Ohio EPA conducted an annual financial record review of the records on file for the Columbus Coated Fabrics Inc., facility referenced above. The facility was evaluated for compliance with the financial assurance requirements for closure and liability coverage, as specified in Ohio Administrative Code (OAC) rules 3745-66-42 through 3745-66-47.

The most recent documentation submitted to demonstrate compliance with these rules includes a financial test for both closure and liability, received by Ohio EPA on March 31, 1992.

In review of documentation submitted, Ohio EPA finds the following violations:

OAC rules 3745-66-43 and 3745-66-47 - As the Chief Financial Officer's Letter does not meet the wording requirements of OAC Rule 3745-55-51(G). Specifically, the CFO Letter references "Chapters 3745-55 and 3745-66" in a number of locations where "rules 3745-55-40 to 3745-55-51 and 3745-66-40 to 3745-66-48" should be referenced.

To demonstrate abatement of this violation, please resubmit a revised CFO Letter which meets the specific wording requirements of OAC rule 3745-55-51(G). I have enclosed a copy of the current wording for your review.

It is also requested that to confirm compliance with the cost estimate requirements of OAC rule 3745-66-42, a copy of the company's detailed closure cost estimate be submitted to this office for review.

Mr. Richard Springer Page 2 May 21, 1992

In a February 29, 1990 letter from Carolyn Reierson of Ohio EPA to Mr. Lawrence Doza, Borden, Inc., it were requested that clarification be provided regarding the corporate relationship between Borden Corporation and Columbus Coated Fabrics. To date, this clarification has not been provided. It is again requested that documentation be submitted to this office which describes the corporate relationship between the two entities.

Please submit documentation to this office within (30) days of receipt of this letter demonstrating abatement of the violations noted above. If you have any questions, I may be reached at (614) 644-2934.

Sincerely,

Laurie Stevenson

having Feverson

Compliance Monitoring and Enforcement Section Division of Solid and Hazardous Waste Management

Attachment

cc: Andy Kubalak, DHWM, CDO



State Of Ohio Environmental Protection Agency

:O. Box 1049, 361 East Broad St., Columbus, Ohio 43216-1049 (614) 466-8565



Richard F. Celeste, Governor

RE: Borden Inc.
Columbus Coated Fabrics
OHD 004294351

Mr. L. O. Doza Vice President & Controller Borden, Inc. 180 E. Broad Street Columbus, OH 43215

July 28, 1986

Dear Mr. Doza:

I hereby acknowledge the receipt of a 1986 RCRA financial test demonstration update, prepared on behalf of the facility referenced above.

Ohio EPA has completed its review of Borden, Columbus Coated Fabric's financial test submission. In general, Borden appears to meet the financial test criteria. However, I have noted a problem that should be corrected or clarified concerning the financial test demonstration. Please clarify or correct the following:

o You have incorrectly omitted Paragraph 4 of the chief financial officer's letter (see attached). Please resubmit the letter with the paragraph included.

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Please submit the corrected information to my attention by August 29, 1986. If you have questions, please contact me at (614) 462-6733.

Sincerely,

Edward A. Kitchen
Surveillance & Enforcement Section
Division of Solid & Hazardous
Waste Management

cc: Dave Sholtis, DSHWM
William Ilg, Columbus Coated Fabrics
Steve Rath, CDO

The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in chapters 3745-55 and 3745-66 of the Administrative Code:

[If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following four paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a particular paragraph, write "none" in the space indicated. For each facility, include its EPA identification number, name, address, Ohio permit number and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.]

- 1. The owner or operator identified above owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in chapters 3745-55 or 3745-66 of the Administrative Code. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:
- 2. The owner or operator identified above guarantees, through the corporate guarantee specified in chapters 3745-55 and 3745-66 of the Administrative Code, the closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility:
- IN STATES WHERE U.S. EPA OR A STATE SO AUTHORIZED IS ADMINISTERING THE FINANCIAL REQUIREMENTS OF SUBPART H OF 40 CFR PARTS 264 OR 265, THIS OWNER OR OPERATOR IS DEMONSTRATING FINANCIAL ASSURANCE FOR THE CLOSURE OR POST-CLOSURE CARE OF THE FOLLOWING FACILITIES THROUGH THE USE OF A TEST EQUIVALENT OR SUBSTANTIALLY EQUIVALENT TO THE FINANCIAL TEST SPECIFIED IN CHAPTERS 3745-55 and 3745-66 OF THE ADMINISTRATIVE CODE. THE CURRENT CLOSURE AND/OR POST-CLOSURE COST ESTIMATES COVERED BY SUCH A TEST ARE SHOWN FOR EACH FACILITY:
- The owner or operator identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated TO the director through the financial test or any other financial assurance mechanism specified in Chapters 3745-55 or 3745-66 of the Administrative Code. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:

This owner or operator [insert "is required" or "is not required"] to file a Form 10K with the securities and exchange commission (SEC) for the latest fiscal year.

The fiscal year of this owner or operator ends on [month, day]. The figures for the following items marked with an asterisk are derived from this owner's or operator's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].